WESTERN FARMER & GARDENER.

"THE PROFIT OF THE EARTH IS FOR ALL; THE KING HIMSELF IS SERVED BY THE FIELD."—*Eccles* 5-9.

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TERMS: FIFTY CENTS A YEAR IN ADVANCE.

WESTERN FARMER & GARDENER.

HERY WARD BEECHER—Editor.

JOHN D. DEFREES, *Printer and Publisher.*

Indianapolis, May, 1847.

TO THE READER.—The duty of filling up the pages of the June number of the Farmer and Gardener, devolved upon one unacquainted with what has heretofore appeared in its columns. Should there be found a repetition in the treatment of any subject, it will be excused for this reason.

Being in possession of many of the most valuable agricultural works in the Union, we have endeavored to select articles with an eye to their practical bearing upon farming as carried on in our own State, as well as to the season in which they appear. Having ourselves not yet attained unto a *scientific* knowledge of agriculture, we have kept within proper bounds, being afraid to step out into unknown paths. If the reader, after giving our selections a careful perusal, shall be satisfied with our endeavors, well and good; if not he must take it patiently until the next number, when it is expected the regular Editor will be at his post.

Editor Protem.

COMMUNICATIONS.

HAY PRESS.

LAWRENCEBURGH, May 27, 1847.

Mr. Editor:—An enquiry for the best form of "hay presses" appeared in your last number. I would call to the notice of your correspondent a new form of press which is now being introduced into this county; it is called "Bullock's Patent Power Press." It dispenses entirely with the screw, the power being obtained by the revolution of a half wheel upon its own axis, and its principle and operation is admired by the large hay-growers in this vicinity.

A press of the above description may be seen on the farm of Mr. Wm. Wymond, in this county. Further reference may be had to the maker, Mr. Daniel Goss, Cincinnati.

Yours, respectfully, M.

ANSWERS FOR R. H. AND J. B.

I hope it will not be considered intrusive, for a correspondent to give what information he has, to enquiries which the editor, who is *absent*, has not answered.

Cut Worms, p. 54, of the present volume. Spading or plowing upthe land in the fall has frequently been practiced: but it is an uncertain remedy, especially if the ground is previously manured. Breaking up the ground is just as likely to bury the insects in their existing stages, more favorably to their existence, as it is to expose them to the frost, for their destruction; and the warming influence of manure turned in with them, or even left on the surface, can but act, as an additional barrier against cold. And again; loosening the soil by the plow or spade, makes it more retentive of warmth, and of course more favorable to the preservation of the insects. To search for and destroy them by hand is, I believe, the best means at present known, to prevent their ravages. "Cheap wooden pill-boxes" are fastened with *glue;* and the first rain to which they should be exposed, would cause them to spring open; and thus let in the cutworms. A string tied around the boxes might prevent this.

On Making Soap, p. 55, present vol. The specific gravity of lye, as ascertained by an egg, and similar means, or indeed by any means, is no test of the strength of the fluid. Lye may be boiled until, (extravagantly speaking,) it will float an iron wedge; and yet be totally unfit for making soap. The virtue of lye, for this purpose, is in its *causticity;* and this may be sufficiently determined by various easy methods.

If the lye is good, it is *wholly immaterial how much grease is added to it.* Be sure to add *enough*, that the soap may not be too caustic. The lye will combine with but a certain proportion, and the surplus fat will always be found floating or resting on the soap when made; and is easily separated by skimming, especially when the mass is cold.

If the materials are good, they need never be boiled more than an hour or two; if at the expiration of this time soap does not *begin* to appear (but indeed in this time it ought to be fully made) it is unnecessary to continue the process any longer, as there is doubtless some defect in the lye; most probably it is too much *carbonated;* and for this there is an easy remedy.

Hickory makes stronger lye than most other woods only because it contains more potash (the essence of lye) in a given bulk of ashes. The only object in leaching ashes is to dissolve out the potash; and the sooner it is done the better. As soon as the ash-barrel is filled, (taking care to add lime to abstract the carbonic acid from the potash,) pour on hot water, as fast as the ashes will receive it; if it run thro' very soon (say in one or two hours,) and be not sufficiently caustic, pour it back again, &c.; adding more hot water when necessary to dissolve out all the potash. J. T. P.

SPRING OF 1847, IN WAYNE COUNTY, INDIANA.

THIRD MONTH.

Average noon temperature, 45°; warmest, 68°; coldest, 26°. 5th, delightful weather; "Robin Redbreast" cheering the morning with his song. 15th, 10° at 7 o'clock A. M. 20th, *turnpikes* in Ohio and Indiana almost impassable; and even the stone paving in the street in Richmond, displaced by the wagons; grass becoming green; pie plants showing their noses; lilac buds four to six pointed. 21st. Very windy last night and to-day. 24th. Beautiful weather. 25th. Uncommonly large flakes of snow falling thickly; but instantly dissolving. Sugar was made on the 8th, and the manufacture still continued. 27th. 28° at 7 o'clock A. M.; windy. Nearly three inches of rain fell, (melted snow included.)

FOURTH MONTH.

6th. Very windy all day. Willows becoming green. 10th. Red maple in bloom. 11th. Ground barely stiffened by frost. American Coot (Fulica americana) shot here to-day. Timothy seed three to three and a half dollars a bushel; clover, four dollars. 16th. Ice a fourth of an inch thick. Buckeye leafing. 16th and 17th. Very windy and dusty. 18th. Ice a sixth of an inch thick. 20th. Plum trees in bloom.

21st. Cherry trees blooming; and some sugars and elms in flower; but woods generally in their wintry brown coat; orchards becoming green; currants flowering. Here and there a peach blossom on trees in town — rarer still in the country. No prospect of peaches. 26th. Strong wind. 27th. Windy; ground very dry; scarcely a seed vegetating in the gardens. 28th. Very windy. Medium noon temperature 64°, highest 80°, lowest 47°. Rain 2 inches.

FIFTH MONTH.

3d. 38° at 4½ o'clock A. M. Ground slightly stiffened by frost. Dogwood and Redbuds in bloom. Woods green: some beech leafing. 13th. Trees generally in foliage. *Fulgoridae* numerous in my spear-grass; and a species of termites escaping from the ground by myriads. 22d. Locusts blooming. Medium noon temperature 67°, highest 78°, lowest 46°. Rain, rather over 6 inches. J. T. P.

SELECTIONS.

MAKING AND PRESERVING BUTTER.

Every farmer may have noticed that the price obtained for whatever he has to sell, always depends more or less on the quality; but in nothing, perhaps, is this so particularly conspicuous as in the article of butter. Double or treble the price is readily obtained for some butter, that poor or ordinary butter will bring. In the New York and Boston markets, the price of butter ranges from eight to twenty-five cents per pound. We could name dairies, the butter from which has brought from twenty to twenty-five cents per pound, for years in succession. Now this difference is caused by *quality*, and how important it is that this principle should be duly regarded.

The first important requisite in the manufacture of good butter, is, that the milk be kept in a proper temperature, and this, experience has proved to be from fifty to sixty degrees. To secure this temperature, the milk-room must be protected as much as possible against the violent heat of the sun, and it should at the same time admit of a free circulation of air, as this facilitates the separation of the cream from the milk. A cool upper room, an airy cellar, or a "spring-house," may be made use of, according to the location. If running water of sufficient coldness can be had, it would be preferred, in warm weather, to set the pans of milk in troughs of stone or wood, through which the water should constantly flow. The writer is aware that a prejudice is entertained by some against "spring-houses," but the unfavorable opinion in regard to them was probably derived from those which were badly constructed, or not properly ventilated. A committee of a Vermont agricultural society, in an elaborate report on butter-making, drawn up a few years since, recommended that the pans of milk be set in troughs of cold running water, till the animal heat had passed off, and after it had cooled, to place the pans in water heated to the temperature of 170 degrees, taking care that the milk should not boil or simmer—the pans to be afterwards set back on or over the troughs—*not in the water*. It was stated that this process had been found to so hasten the rising of the cream that it would all rise, and could be taken off in half the time ordinarily required, and that it also improved the quality of the butter by preventing the sourness of the milk and cream. The time occupied in heating the milk of twenty cows, is said to be twenty-five to thirty minutes. We cannot from experience, speak of this mode of managing milk and cream, but having some practical acquaintance with butter-making, we should not doubt its success.

We believe it to be well established, that to produce the very best butter, and especially that which will keep longest, the cream should be perfectly sweet when churned.—Some experiments, very carefully conducted, some years since, by Dr. TRAILL, of Edinburgh, and published in the Transactions of the Highland Agricultural Society, clearly lead to this conclusion,* and we believe it is supported by the observation of the best butter-makers in this country.

The practice of churning the *milk and cream together* is followed in some sections. Its advantages are, that in warm weather, or when the milk is kept in a high temperature, more butter is obtained than if the cream only was churned. We are not aware that any other advantages are claimed for this mode; and those who have tried both, churning the milk and cream together, and the cream alone, state that if the cream rises well, it affords as much butter as is obtained from the milk and cream. It is true that in regard to the experiments of Dr. Traill, before referred to, he concludes that churning the milk and cream together after they have become slightly acid, seems to be on the whole the most economical process; but the reason he gives for it is, that "it yields a large quantity of excellent butter-milk," which is largely used as an article of diet in Scotland, and is of considerrble consequence as a source of profit, being constantly sold in the markets. Where the milk and cream are churned together, it is usual in this country, to allow the milk to stand till it is curdled, but not till whey rises to the top. The best butter-makers are very particular in regard to this, and are always careful to have the milk churned at the particular stage mentioned.

Working Butter.—The object in working butter is to free it from the butter-milk, and the *caseine* or cheesey particles, which, from their tendency to putrefaction, prevent the butter from keeping sweet. To effect the separation to the best advantage, it is important that the butter should have, when it first "comes,' in the churn, a considerable degree of solidity, and that the particles should have a tendency to cohere. This will generally be the case, provided the milk and cream has been kept in a temperature sufficiently cool, and is not too much heated in churning. And it may be well to observe here, that the cream or milk should not be raised in churning higher than 75°, and that it will be necessary to bring it to about 55° before churning will be attended with much advantage. The use of the thermometer in making butter, as well as in making cheese, is now regarded as almost indispensible.

Some butter-makers, whose butter is noted for its excellence, pursue this course in working it: as soon as the butter is taken from the churn, it is beaten together by a ladle or spatula, and afterwards worked in a brake, similar to what is described in the last volume of the Cultivator, pp. 187, 240. The salt is then added, and it is set in a cool place for a day or two, when it is worked over once more; but care is taken that it is not worked *too much*, as it renders it oily and injures its flavor.

Washing butter, when first taken from the churn, is a practice the propriety of which has been considerably controverted; but perhaps the true reason is, it is not always understood. When the weather is warm, or the milk and cream has been exposed to too high a temperature, the butter is apt to "come soft," and in this state it is very difficult to work it properly. The use of cold water, in such cases, is to harden the butter and facilitate the expulsion of the butter-milk. It is of the greatest importance that butter be properly worked, for on the perfection of this part of the process, or the entire separation of the oleaginous from the serous and cheesey particles, its keeping quality greatly depends. There seems, therefore, to be no objection to the use of water, when butter is in the condition above mentioned; but it would, on the contrary, appear to be decidedly useful in such cases.

But the question presents itsely—Suppose butter could be properly worked and the butter-milk thoroughly expelled without the use of water, would washing be expedient?

Practical results, so far as the knowledge of the writer extends, furnish a negative to this question. If the milk and cream has been kept in a proper state, and is not too much heated in churning, the butter will generally "come hard," and may be readily worked in a thorough manner without water. Trials have been made by dividing particles of butter, produced under such circumstances as are here mentioned, washing one portion and working the other without washing, and the *unwashed* portion has been found to keep sweet the longest; and the fact is deemed to be well established, that butter which "comes" sufficiently solid, is injured by being washed in water. In the best dairies in Europe the practice is not approved. In the chapter on "Butter," in the "British Husbandry," it is remarked in refer-

* "Butter from sweet cream has the finest flavor, and appears to keep longest without acquiring rancidity."—Conclusions of Prof. Traill, in reference to his experiments in butter-making.—*Transactions Highland Society*, for 1843, p 23.

ence to washing, that it "is a practice not to be commended, and in many dairies has been relinquished." In the "Farmers' Series," in the account of a "Glocestershire Vale Farm," which is said to be conducted with superior management, we are told—"it is found by *long experience* that butter retains its sweetness much longer when no water is used in making up."

Upon the whole, we would restrict the washing of butter to those cases where the butter-milk could not be expelled without it, and would prefer that course of management which would obviate the necessity of using water for this purpose.

Dr. Philip Physick, of Germantown, Pa., who for several years in succession received the first premium of the Philadelphia Agricultural Society, pursues the following mode in working butter. When the butter is taken from the churn, it is laid on a clean linen cloth spread out as flat as possible, and not more than two inches thick. A bag of pulverized ice, about half a peck in quantity is provided, and on this is placed the cloth which has the butter on it, where it remains till the butter is quite hard; it is worked on a marble slab with a wooden spoon or ladle, having a linen cloth next the ladle to take up the butter-milk.

Salting.—The best rock salt, made perfectly fine, ought always to be used, if it is wished to keep the butter long. A great deal of butter is spoiled by using impure salt. The loss to the farmers of this State from this cause, is annually very great, and it is felt to a serious degree in all the western country. It is the opinion of experienced dealers in butter, that the price of a large portion of that which comes from the west and is sold in the eastern cities, is injured to the amount of six to eight cents per pound by the use of bad salt.

Less than an ounce of the best Turk's Island or St. Ubes salt, is sufficient for a pound of butter. In some good dairies, fourteen ounces of salt are used for sixteen pounds of butter. Sugar and saltpetre have been tried, but experience has shown that they are of no special benefit. The salt should be intimately incorporated with the butter when it is first taken from the churn, and the butter should then be set in the dairy-room for twenty-four hours, when on working it over again, it will be found firm and solid. If intended for long keeping, the butter should be packed in well-glazed stone jars, or well seasoned white-firkins. Smaller parcels are generally preferred than it was formerly common to put up. From twenty-five to fifty pounds is the quantity usually wished in a jar or firkin. It is recommended to keep a strong brine on the butter, to the depth of an inch.

The preservation of butter depends more on the total expulsion of all extraneous ingredients, and on its perfect exclusion from the air, than on the quantity of salt with which it may be mixed. It is prepared in England and sent to India, with but very little salt, and sometimes without any. For this purpose it is purified by melting before it is salted and packed. Loudon thus describes the process: "Let the butter be put into a proper vessel, and this be immersed in another containing water. Let the water be heated till the butter be thoroughly melted; let it continue in this state for some time, when the impure parts will subside, leaving at the top a perfectly pure transparent oil. This, when it cools, will become opaque, and assume a color nearly resembling that of the original butter, being somewhat paler, and of a firmer consistence. When this refined butter has become a little stiff, the pure part must be separated from the dregs, and be salted and packed up in the same manner as other butter; it will continue sweet much longer in hot climates, as it retains the salt much better than in its original state. It may also be preserved sweet without salt by adding to it a certain portion of fine honey, perhaps an ounce to a pound of butter, and mixing them together thoroughly, so that they may be perfectly incorporated."

Cultivator, Albany.

CULTURE OF ORCHARD GRASS.

I am satisfied from a trial on a small scale, that orchard grass will thrive well in the west, particularly in the region of the Ohio river, where my experience has principally been in regard to it. Orchard grass unquestionably thrives better on timbered land than on prairie; it will thrive well on the prairie where there is considerable clay in the soil. I have tried on a small scale in this county (La Porte) and find it will not flourish as well as it did near the Ohio river. But I have no doubt that with proper care and management in seeding down it would do well on our prairie lands of the West. With reference to its productiveness as a hay grass, I am of the opinion that it is far inferior to timothy. It may be cut twice in the year, its growth being equal to red clover; indeed it is an excellent grass to mix with red clover, either for pasture or hay; it comes to perfection about the same time, and differs from clover in blooming but once, the second crop being leaf only.

I consider it an excellent grass for pasture, far superior to timothy. It is less hardy than timothy, but when fairly set grows more thrifty. It should be sown thick and suffered to get good root before pasturing, if sowed alone; if sown with clover it may be used for pasture sooner.

The following taken from the Practical Farmer and Gardener, published at Cincinnati, Ohio, by Geo. Conclin, (and by the way an excellent book for a practical farmer,) may be of service to the inquirer.

"*Orchard Grass, or Rough Cocks-foot Grass.* It is excellent sown with clover. It is the better for being frequently and closely cropped either with the scythe or by cattle. Its growth is then early and rapid. It does well on loams and sands, and flourishes in shade. Orchard grass is worthy of a more extensive culture in this region than it has hitherto attained. It supplies pasturage as early as red clover, and produces at least as heavy a crop as timothy. It is proof against drouth that will kill clover; is not easily drowned by inundation; the growth of the aftermath is remarkably quick and rapid, and nothing but severe frosts can stay its progress.

"Orchard grass seed is always in the hull or chaff, and is very light, not weighing more than twelve or fourteen pounds per bushel; and if sown without being first wetted, it is very liable to fail, though the seed be ever so good. Spread it on the floor and sprinkle it with a watering pot, and then mix it well with a rake, and let it lie till the next day, when if necessary it may be again sprinkled with water and mixed up well. Before sowing, mix plaster of Paris with it, to bring it to a proper state for sowing. The water and plaster will increase the weight and cause it to settle close to the ground and enable it to take root.

"This is one of our most valuable and profitable grasses, and every care ought to be taken in sowing it properly, for on this depends the success of the crop. It is generally sown too thin; two bushels to the aker is preferable to one, by just one half. Remember that what is worth doing at all is worth doing well."

My plan has been to sow it on oats ground in the spring, immediately after sowing oats; and if it is harrowed in, the better. If sown in wood-land, the woods should be thin and the cattle kept off it for a year or two, till it gets well set.

Prairie Farmer.

CLOVER.

Its value to the farmer, mode of cultivation, &c.

BY J. F. C.

Although the value of clover is in some measure appreciated, and its cultivation somewhat extensive, yet they are far less so than its importance demands. It is valuable to the farmer for three important purposes—to feed his stock, fertilize his land, and to fill his purse. His cattle thrive upon it when green, as a pasture in the summer, and in the stall, when fed with the hay in the winter; his wheat and corn thrive upon it when buried and decomposing in the soil, and his purse increases with the increase of his cattle and his crops. It is the very basis of good farming on lands susceptible of alternate husbandry. A good clover lay, as estimated by experienced agriculturists, is said to be worth as much as five tons of bard-yard manure to the aker. Why, then, it is not more generally cultivated in Michigan, especially on our sand and gravelly openings, (which of all lands are best adapted to, and most need its use,) is to me a wonder, unless it is because its value is not properly ap-

preciated, or known. Entertaining these views, I had thought that a few suggestions in regard to its use and culture, might not be wholly uninteresting to the readers of the Michigan Farmer.

Botanists enumerate a great variety of kinds, but those most common in use are usually denominated as three kinds —the large, middle, and small, or early June red clover. Of these kinds, I prefer the middle kind, for the following reasons: that it affords a better quality of hay, the stems not being so large, with more leaves to the same bulk, yet with sufficient growth to afford a good burthen to the aker; being an earlier variety, it admits of taking a crop of hay and a crop of seed the same season, which is not a small item in its favor—the crop of seed at present prices, varying in value from $15 to $30 per aker.

There are three errors in the management of clover, which I design briefly to notice.

1st. *In seeding, too little seed is used.* The object is, to procure cheap food for animals and plants. No crop surpasses it in the quantity which it affords of these, with the same exhaustion of the fertility of the soil. One farmer sows four or six pounds of seed to the aker, and gets in return, a thin and coarse crop of grass, while the vacancies are to be filled up with sorrel or other noxious weeds. Another sows ten or fifteen pounds, and obtains double the crop of the other, at a trifling additional expense of not to exceed a dollar per aker for seed, while his land is doubly benefitted by being kept clean from weeds, and by the green crop to be turned. From ten to fifteen pounds seed to the aker should be sown, whether the object be for hay or pasture, or to be turned in for the benefit of the soil. The product will, in some measure be in ratio to the amount of seed sown, and the advantages of heavy stocking, both in the hay and to the soil, will far exceed the cost of the extra seed, of which every farmer ought to raise a supply at least for his own use.

The best time to seed with crops of small grain is in the spring. The seed on light, dry, warm land should be sown before the second time harrowing, and cross harrowed after being sown, with a light harrow, and then rolled down with a roller. This method, in some measure, obviates the danger of the young and tender plant being scorched to death by our hot summer suns, which is the chief difficulty of obtaining a good stock with clover, on light sandy soils. The practice of some is, to sow with wheat in the fall; but in this method, there is danger of its being winter-killed. Others sow it in the spring, on the wheat; but this method on the kind of soil above mentioned, is an uncertain way, or rather *it is a certain way* of losing the seed, as it will not obtain depth of root sufficient to stand the hot suns and drouth of June and July, in ordinary seasons. Another way which I have never tried, but which of late is highly recommended by some, is to seed with corn after the last time of dressing, the system of level culture being adopted, (the only right way,) and covered by the cultivator or corn-harrow. This method, I am inclined to think, is perhaps the surest mode of stocking, as the corn affords a protection from the sun, and usually the driest and hottest weather of the season is past before the clover is advanced enough to be injured by it; while at the same time, it will obtain hardness enough to withstand the winter frosts. To succeed well with clover, gypsum should be sown each year, from one to two bushels per aker.

2d. *Clover lays are permitted to remain too long before they are brought under the plow.* The clover, as I think, is a triennial plant, and if allowed to remain four or five years before plowing, the advantages to the soil as a green crop, are nearly lost. 'Tis true, if some portion of it is suffered to ripen each year, new plants will spring up to succeed those going to decay; but I should recommend takihg it up at least as soon as the third year. The action of clover in improving the soil is not only in supplying a large amount of vegetable matter, but it acts mechanically. Its tap roots penetrate the soil, and as they decay, render it friable and permeable to heat and moisture.

3d. *The common way of curing clover hay is bad.* The common practice of spreading and letting it lie until entirely dry, causes most of the leaves and blossoms to crumble off before the stalk is sufficiently dry, and where lying thick, it must remain out over night in the dew, and no kind of grass is injured so easily by wet and drying as clover. The plan I would recommend is, to cut and spread it, and as soon as thoroughly wilted, to rake and put it in cocks, and if the weather is favorable, by the second day it will by its sweating and handling over, in drawing, be sufficiently cured, and at the same time, retain the leaves and blossoms, together with its bright green color and flavor. For hay, clover should be cut as soon as about half of the blossoms have turned brown. When an after-crop of seed is intended, it should, in this latitude, be cut from the 20th to the 25th of June.

One great objection of the farmer to sowing more clover, and more frequently turning it in, is the cost of seed. This, as I before observed, after the first season of sowing, every farmer ought to raise his own. If a hulling machine is not at hand to clean it, it is even better in the chaff, when intended for his own use, (as I have proved by experience,) for the chaff or hull is a sort of protection to the young and tender root at its first start. It is a piece of folly for the farmers of Michigan to pay such a tribute to the State of Ohio for clover seed, when we have every facility that they have, for raising our own, and even for exportation. I should not, however, recommend taking more than one crop in succession, from the same land, as I think it would be running the land rather hard, especially if the first crop in the season is cut for hay Lastly, though not *leastly*, by the use of clover, and by it alone, and a proper rotation of crops, the farmer is enabled to dispense with the naked summer fallow, and at the same time keep up the fertility of his soil, thus enabling him to nearly double his profits, without increasing his expenses in cultivation.

Kent county, March 12, '47. *Mich. Farmer.*

ON CLEARING AND CROPPING NEW LANDS.

Mr. Bateman:—Some twenty-seven years ago, I commenced clearing my farm. I began in the wilderness, and being destitute of money or help, I thought I would devise some means to save labor; as all know who have had the experience, that it is no *small job* on heavy timbered land, to chop and clear off 50 or 100 akers of land unless we have help enough to "go it strong." Well, after I had cleared off some two or three akers, and got space enough to build me a "*shanty*," that would be out of the way of falling trees, I commenced clearing my land in the following manner: Sometime in June, after the leaves got pretty much their full growth, I would commence cutting out the *under-brush* and small timber, say up to the bigness of some ten or twelve inches in diameter, trim them out, cut the brush pretty fine, and pile them around the large timber, and in that way I found I could *under-brush* about half an aker a day. Well, sometime in July or August, when the brush got dry, not being particular in what "time of the moon" I should burn them, though some say "the *old of the moon*" in August is the best time, however I did not depend on the moon in killing timber, but when my brush got dry I would burn them, and as the brush was full of leaves, they would make quite a flame, and scorch the standing timber up some ten or twelve feet as black as my "*ould hat.*" As to the variety of my timber, it was principally, beech and hard maple, some bass-wood, &c.; well, by the time I wanted to sow my wheat, say by the 10th of September, the standing timber would be principally dead—leaves pretty much off—well, it was but a trifle of work to "*log it off*," to what it would be if the timber had been all cut, and in that way I would (if a good season) get a good crop of wheat. After my wheat is off I (*sometimes*) burn off the stubble, sow to rye, &c.; I prefer sowing on my timothy and clover at the same time I sow my rye, as it is more sure to catch, and does not materially injure the crop of rye. The third year I cut down the standing timber, which by this time has become dry, and at the place where I want to cut the tree down the sap is rotten and chops much easier than a green tree, if I want to use my land for meadow, I fall my timber crosswise and together as much as possible, and it being dry, it burns off without much chopping up or loging, and where the firebeds are I scatter on a little hay seed, and all comes up nice and I have a good meadow; but if I want it for pasturing I let the timber lie and rot on the ground. When I had gone over what I wished to of my farm in that way, and had done raising wheat on *new* land, I commenced on my *old* land, on

which by this time the timber was principally decayed, what there was remaining I would haul together and burn; and I find, that stumps will rot out sooner than they will where the timber is cut green; and in good seasons I have always got good wheat on my old land; say from twenty-five, thirty to forty-five bushels per aker. The next crop I would sow rye; just turn the wheat stubble right under, and drag it in lengthwise of the furrow, generally get some twenty-five or thirty bushels to the aker, the rye stubble I would turn under in the fall, and the next spring plant to corn, which in favorable seasons, I would get from forty to fifty, and one year by a little extra culture, I got eighty bushels per aker. The next crop would be oats or spring wheat; of spring wheat I have, in former years got from twenty to thirty bushels per aker, of oats, from thirty to fifty bushels per aker, my next crop would be grass.

Now I think my way of clearing land, is an improvement in at least two items. 1st. It saves the hard labor of chopping and logging; and 2d, I think it is much better for the land, than it is to take all the timber off at once, and let in the hot rays of the sun; I think by leaving the timber to rot on the ground, is a *great improvement*; especially on pasture land.—[*Ohio Cultivator.*] L. N.

Windsor, Ashtabula Co., O., April, 1847.

SUMMER FALLOWING FOR WHEAT.

To procure a good crop of wheat, no means are more certain than a summer fallow; it not only benefits the present but future crops; most especially so on those soils wherein clay predominates. Fallowing when skillfully performed, not only loosens the soil, but also, by absorption, improves it; that is, the various gases which are evolved from vegetable decompositions, and float in the atmosphere, are absorbed by the earth, and there retained for the nourishment of future growths. Rain-water is frequently impregnated with these gases, and by it they are carried to the soil. Another effect of fallowing is to offer different portions of the soil to the sun, the rays of which act powerfully on its chemical combinations, and by heat, put in action the great galvanic battery of nature. Fallowing, also, when properly done, destroys much that should not grow in a wheat field; and it is to this part that I shall confine my attention.

I prefer for a fallow, ground that has been one season in corn, which should be turned over as shallow as it can be, to be well done. The object in this shallow plowing, is to place those seeds which are within three or four inches of the surface, in such position that germination will take place. Many seeds, when placed five or six inches from the surface, will not grow at all; but remain inert. Cockle is one of these, and I have evidence sufficient for me to believe that it will lay in the ground inert for a number of years, (I think five or more,) and then, if placed suitably, will grow. Clover seed will remain under a sod for eighteen months and then grow. Shallow plowing, in the first instance, does not place seeds so low but they will vegetate freely. If the field be a sward, and it can be inverted at three inches, I should suppose it deep enough, and as to time, I would do it about the first of sixth month, [June,] or during that month. In a week or ten days, I would harrow it well, lengthwise the furrows, which will materially assist the vegetation of seeds in the soil. In six weeks from the first plowing, stir it crossways not less than six or seven inches deep. If a sod, it will hardly be sufficiently decomposed for this, so early, and may need one or two harrowings before it will be. The fore part of eight month, [August,] give it a plowing, as deep as it can well be done, so as to move an inch or more of the subsoil. This mode is the most effectual to remove pests from the crops, of any I have seen tried, and greatly does it improve the earth, and will, I believe, generally well repay the expense. Apropos to this:—In the summer of 1842, I broke a piece for wheat, which was a stiff timothy sod—soil limestone clay. It was done in the sixth month. A fence had been moved from one side of it the preceeding year, and the old row planted with potatoes. This potato patch was frequently stirred in 1842, and in the eighth month I commenced stirring, making the place where a year before I raised the Mercers, part of the first "land." From the partial decomposition of the sod, I was induced to quit with but one land. Early in the 9th month, it was all plowed and seeded. In the tenth month, (1st of it,) it appeared beautiful; but the fly commenced its ravages, and with the exception of that one land they denuded the field till it was bare as a road, and that land was as distinctly marked as a plow could have done it. The wheat on it was thick, while the other with re-sowing was thin. I leave others to judge of the cause.

Rob. Hatton.

Richmond, Ia., 1847.—*Alb. Cult.*

BEES.

Messrs. Editors:—Perhaps throughout the animal kingdom there is not a more curious or more interesting creature than the honey-bee. It has excited the attention of the curious in all ages, throughout the civilized world. This little animal seems to possess an intelligence that is truly wonderful. Destined by nature to preserve its race through the winters of cold climates, not by remaining in a torpid state like other insects and many kinds of larger animals. Nor is there sufficient warmth in a single bee to preserve life in a wintry day, for a single hour. But by the united warmth of the whole swarm they crowd into a compact body—preserving a temperature as high as sixty or eighty degrees in the coldest weather, even when the mercury sinks below zero.

I believe all bee-masters and all who have written describing the nature and peculiarities of the honey-bee, lay it down as a fact incontrovertible, that the queen bee produces all the eggs, and is the only female in the hive. The little knowledge I have gained respecting the nature and habits of the bee during twenty year's observation, enables me to make a few remarks which I think proves *something* and may be the means of calling the attention of the *curious* to make some further developments.

For a few years past I have noticed during the swarming season a few bees in the hive, called neuters, or working bees, that appeared plump like those whose honey sacks are filled when they return from the field. On opening their abdomen I found a living animal, such as the brood-comb contains. I noticed an article on bees in the Cultivator of March 13th, from an unknown source, suggesting that the queen produces the working bees and the working bees or neuters, (so called,) produce the males or drones, and likewise the queens. This is the first opinion I have found, whether written or verbal, that corresponds with my experience. The males and queens are produced at this season of the year when some of the working bees are found with young. Now the doctrine of all authors who have written the history and nature of bees, maintains that the queen is capable of depositing 100,000 of eggs in a single season, and that she is the only female in the hive, also, when a hive loses the queen, which is soon discovered by the whole swarm, they immediately erect royal cells, transport from the brood comb a young bee in the larva state to the cell prepared, and there, by a peculiar mode of treatment, feeding on food more pungent and other kind offices rendered, the young bee undergoes in its nature a complete *revolution*, coming into the world differing in size, shape, color, sex, and in all duties of after life, quite different from what it would have been had it remained where first deposited. Now, that nature with careless hand leaves her works to be so twisted and new modeled by art, admits of a doubt.

I wish to offer one more reason in support of my doctrine, and I have done. In the winter of 1845, on examining my bees, I found a young swarm dead, caused by suffocation, in consequence of some bees falling on the bottom board, and closing the entrance of the hive. The idea occurred to me that if they had not been dead too long and become frozen, they might be restored to life. I carried the hive to the house, placed it before the fire, which I supplied with plenty of dry wood, spreading blankets on chairs that I drew up in a circular form to secure the heat around the hive; and in fifteen or twenty minutes the bees showed signs of life. In about an hour they were all lively as bees in the summer.

I placed the hive in the bee house. When they became quiet, I raised the hive, scraping out all the dead that did not return to life by warming. When spring returned this swarm would not work, although there were plenty of bees. They remained in the hive making very little noise; occa-

sionally a single bee came out of the hive and flew abroad. I now felt convinced that the queen was among those which did not return to life when warmed by the fire. But to see what would become of a hive full of comb and honey with plenty of bees without a queen, I let them remain till summer.

It was some time in the month of June, after having lost all hopes of returning prosperity, with a brimstone match I took the life of every bee. Then I commenced taking out the comb, carefully examining every piece. When I came to the sheet in the centre of the hive, about half way from top to bottom, I found three royal cells, newly built, a fresh wax, and in each cell a young living bee, resembling those I have taken from the abdomen of neuter or working bees. Sorrow reigned. I had taken the life of a hive of bees that had just laid a sure foundation of returning prosperity. I know this doctrine will appear new to all. But no mistake.

Now, Messrs. Editors, here is something new, drawn from careful investigations. I do not send you this article to gratify any spirit of contention, but should you think it may be the means of calling the attention of bee-masters to examine for themselves, during the coming season, to see if some of the neuters or working bees do not produce young, either male, queen, or both, whereby our theory may find support, you will please give it a place in the Cultivator, and oblige a subscriber. KILBOURNE.

Lunenburg, April 5th, 1847. *Boston Cult.*

MANNER OF APPLYING MANURE TO THE SOIL.

There is much difference of opinion in regard to the best mode of applying manure. Some hold they should always be plowed in, and give as a reason that "manure never goes down, but if lost at all it is by evaporation." Others go counter to this rule in all respects, and contend that "surface manuring" is far preferable—that the valuable principles of manure cannot be carried off by the air, but are only in danger of being lost by "leaching." The advocates of the two systems may be regarded as in a situation similar to the two knights who fought over the white and black shield—both in part right, and part wrong.

As regards the position that manure is never lost by going downward, every man's observation may have taught him that it is an error. Whoever has examined the earth under his manure heaps, or in his barn-yard, must have found palpable evidence that the fertilizing elements of manure may penetrate to a greater depth than is commonly reached by the plow. In one instance within the writer's observation, the surface of the ground where a barn had stood was carried off to the depth of eighteen inches to two feet, and yet for several years afterwards the spot, though in the midst of a field, was plainly discoverable in the increased luxuriance of the crops it produced. The cases cited may be said to be extreme ones, but they show that the theory to which we refer is false.

The idea that nothing can be lost from manure by exhalation, does not seem to be any better supported by facts than the opposite theory previously considered. Carbon and nitrogen, which constitute the chief elements of manure, are both capable of assuming an aeriform state. The nitrogen, which exists in manure for the most part in the form of ammonia, readily becomes volatile, and escapes into the air. The escape of this substance from manure heaps and fermenting urine, is readily perceived by the strong smell emitted. The dung dropped on pastures by cattle and horses, does comparatively but little good. It mostly dries up, and loses its value. If all the strength of it soaked into the soil, should we not see a greater effect from it? The urine dropped by animals is immediately absorbed, and the effect is sooner or later strikingly seen in the rankness of the grass.

The true point to be observed in the application of manures, is to place them where none of their value shall be wasted, and at the same time in a situation to be acted on by the agents of decomposition. These agents are chiefly heat, air, and moisture. Heat is required because in its absence substances are without change; air is required, because oxygen, a kind of air and a part of the atmosphere, is the greatest decomposing element in nature; and moisture is required, because its absorption by objects admits the entrance and action of oxygen. Light, also, (and perhaps electricity,) exercises some agency in decomposition. The medicines of the doctor and apothecary are sometimes decomposed by the influence of light, even when contained in vessels which are perfectly impervious to the air. It is on account of this influence that wines and other fermented liquors are kept in the dark. Every one may have noticed the effect of light in making vinegar, and may have seen how the souring process is hastened by setting the barrel where the sun will shine on it and by turning the rays on the liquor by putting a bottle in the bung-hole.

The influences essential to the germination of seeds, are nearly the same as those which promote decomposition. The seeds of some plants will remain inert, when buried deep in the soil, for an indefinite period, and on being brought near the surface, or within the influence of heat, air, and light, will germinate and produce perfectly healthy plants. Instances of this kind are within the observation of every farmer. When a furrow-slice of seven or eight inches in thickness is turned over in a rich soil, though that soil may not have been plowed for years before, the newly exposed surface soon teems with a growth of plants, produced from seeds which could not vegetate under the deep covering where they had been placed.

Now it follows from our previous reasoning, that the circumstances which would prevent the germination of seeds would prevent or retard the action of manures. We conclude, therefore, that manure lying at the bottom of a furrow eight inches deep, would be of much less benefit to growing plants than if it was only from two to three inches below the surface.

From the principles above laid down, the following rule is deduced in regard to the application of manures. That it is best to keep them near the surface, well mixed with earth in which situation they are most readily brought into a soluble condition and rendered available to the support of plants—their valuable qualities being neither liable to be dissipated by the atmosphere or washed too deeply into the soil.

An exception to this rule is made in regard to soils which it is wished to render more loose and friable by strawy manure or fibrous vegetable matter.—*Albany Cult.*

AMERICAN HEMP.—By invitation from Col. Lewis Sanders, U. S. Hemp Agent, we yesterday visited the Agency Store of Messrs. James Anderson & Co. to look at a lot of water-rotted Hemp, from the farm of Mr. Nicholas McCarty, of Indianapolis, Indiana. On a comparison with a sample of the best Riga Rein hemp, sent from the navy yard at Boston, this lot of Indiana Hemp was pronounced by gentlemen present, and the Agent himself equal in many respects, and in others superior to the sample of Riga Rein. In asserting this to be the fact, we do not rely on our own judgement. In appearance and touch it is decidedly before the Riga; and in texture and strength surpasses it.

For some cause, we learn that Mr. McCarty has suspended operations for the present, fearing perhaps, that his Hemp would not find favor with the Eastern manufacturers, under an old prejudice that American Hemp could not be made equal to the Riga Rein. His efforts to produce such an article have proved triumphantly successful, and we hope he will persevere.

The lot now at the Agency is in every respect superior to any we have seen in the market. For this lot we learn the Agent has offered $216 66 per ton.

We further learn that a lot of superior water-rotted Hemp has been received from the farm of Bishop Polk, of Tenn. which is equal to the best Riga Rein, and commands the highest price.

Major Gen. Pillow, of Tennessee, (now in Mexico,) has a contract to deliver, from his estate in Tennessee, 30 tons Hemp per annum.

While at the Agency, our attention was called to a sample of Hemp, broken from the dry stalk or stem, without previous dew or water-rotting, on a brake invented by Jas. Anderson, Esq., of this city. The U. S. Hemp Agent declared this to be the finest specimen he had seen, and that it had proven to possess greater strength than either dew or water-rotted Hemp. By the process of dew and water-rotting the

glutin of the Hemp is abstracted. In the mode of breaking adopted by Mr. Anderson the *glutin* of course remains in the fibre, but he has discovered a process by which it is rendered insolable, by exposure to the atmosphere and rain, and consequently entirely harmless. Great credit is due Mr. Anderson for his untiring efforts to perfect a machine and discover a process by which these important results are produced, and we are gratified in being able to state that he has at length, and at great cost, attained the object of his unwearied labor.

We have the authority of Col. Sanders for saying that the Hemp thus prepared will make a stronger cordage than that produced by the old process of dew and water-rotting.

It is gratifying to notice these evidences of the improving condition of Hemp culture. The Government is disposed to encourage its production by directing its Agents to purchase all such as is of the right texture for the public service.

In reference to the Hemp, prepared by the process of our estimable fellow citizen, James Anderson, Esq., we learn that the Government Agent has taken six tons which are to be forwarded to the Eastern Navy Yards for the purpose of testing its quality.

The late advance in the price of Hemp will stimulate to a further production of the article. Not probably the coming season, as the price of seed has advanced from 50 cents per bushel to $2 50, and to even $5 in some parts of Missouri.

A considerable portion of the crop of last year has remained in the hands of the farmers, in consequence of the low price and high freights. The advance of near 100 per cent. in price has brought out large supplies, which are now going forward to meet the demand in the Northern markets.

The amount shipped from New Orleans since the 1st of Sept., chiefly to the North, reaches near 15,000 bales.

In a commercial point of view this is an important article. By reference to the table of exports from New Orleans, embracing a period of five years, we ascertain the following facts in relation to the shipment of Hemp from that city: No farther back than the year 1841-2 there were exported but a hundred bales. In 1842-3 there were exported 14,873 bales; 1843-4, 38,062; 1844-5, 46,274; '45-6 30,980. This falling off is traceable to the cause above stated.

Our farmers are now paying greater attention to the proper preparation of the article for market; and American Hemp is fast taking the preference over Riga; there is less prejudice against it on the part of manufacturers, as repeated tests have proved its fibre to be stronger, and quite as durable as the best of foreign growth. The few specimens before noticed fully bear us out in these remarks.—*Louisville Democrat.*

LOBOR---ITS VALUE.

Every hard-working man knows what labor is, but political economists strain a little to arrive at a definition of it. Without aiming at rigid exactness, we may call it "the application of power to purposes of utility." And assuming that this utilitarian definition is appropriate enough, we may proceed to divide labor into three varieties. The first is applied to the raising and the appropriation of the produce of the earth: this is agricultural labor. The second is that expended upon the conversion of that produce into articles of use: this is manufacturing labor. And the third is that applied to the distribution of the produce of these species of labor among consumers: this is commercial labor. It is this expenditure of power which gives fertility to the earth, confers value upon the mineral treasures contained in its bosom, turns to use the inferior creatures which live and move in the seas and rivers that water it, and saves from waste the spontaneous vegetation that clothes it. All these are without value to the family of man, till they are subdued, gathered and combined by human industry.

There is indeed a fourth species of labor which is of early use for the regulation of the other kinds: this is intellectual labor. It is this labor which builds up science, and reduces the operations of the agriculturist, the manufacturer, and the merchant, to practical arts. Legislators and magistrates, men of science, physicians, teachers, artists, and poets, all exercise functions calculated to increase the comforts, the enjoyments, and the conveniences of social life, and ought therefore to be placed like the husbandman, the manufacturer, and the merchant upon the list of useful laborers, and entitled with them to a due share of the rewards of labor. Without these, man might exist, but he would exist as a savage: and the withdrawal of the functions of any one—the least important, would be felt as a want in the social state.

As man's comforts augment, his labors multiply; for labor is the great price, the original purchase-money that is paid for all things. Indeed, so omnipotent is this thing *labor*, that political economists have agreed to call it the only source of *wealth*—meaning by wealth, the riches, apart from the spontaneous products of the earth, and the unappropriated gifts of nature, possess value in exchange. The creation of exchangeable value is the legitimate aim of labor. It draws upon nature as the great capitalist which from the beginning of time has furnished the raw material on which industry, since it first began its functions, has been exercised; but it has not added a single material particle to the great fund; it has created no material thing; but like the chemist, it separates and combines, and it is the labor expended upon the appropriation and the modification of qualities, which brings a *price*. Whatever requires no labor to appropriate, has no exchangeable value—it cannot be *sold*, however, intrinsically valuable the thing may be. No one will pay, for instance, for the light of the sun, or for the air he breathes, because he partakes of them, and has all the advantages which they give, without any man's labor; and it is only when water is conveyed to us from a distance, that it has a price; and it is the price of the labor expended upon the conveyance that we pay to our water companies. In localities where nature has placed the article within the convenient reach of every body, it has no exchangable value. Land, in the same way, acquires a value by appropriation, and indeed all things which are in common, and alike the gift of nature to all men, the man who first sets the mark of his industry upon it, gives it a value which never can be severed from it, and that man is he who has the best and the only right to say *this is mine*. The child, when it places a chair by the fire, claims that chair for the occasion, and the right is recognized by every child in the family; the appropriation of the chair, and the labor of placing it, constitute the right.

Some indeed state the subject differently. They tell us that it is not the labor which is expended upon a thing that gives it value; on the contrary, that it is on account of its selling for a high price, that labor is expended in procuring the thing. A fisherman, for instance, would get as much for a salmon, which should accidentally leap into his boat, as he would for another which had cost him many hours' toil to catch. The case may be put more aptly, by supposing that a hodman finds a dollar: it is worth just as much to him as if he had received it as the wages for his labor. This at most is a distinction without a difference. The fisherman values his chance salmon by the average amount of labor which a salmon represents, and the hodman similarly values his dollar. If salmon and dollars could be got by everybody with the same facility, it is plain that their exchangeable value would be estimated at just the labor necessary to collect them. It is true the case is not always so plain. If a workman, whose wages are six dollars a week, should when eating an oyster, meet with a pearl, for which a jeweller gives him sixty dollars, he may not at first see why the pearl, which cost him nothing, would be valued by the jeweller at ten weeks of his labor; nor may the jeweller be able exactly to explain. He, however, gives the price, because he knows that he would pay as much in the regular course of trade, and pearls which come to him in that way, are valued in exchange by the average labor of procuring them. We might indeed describe pearls as costly because they are scarce, they represent much expended labor.

Labor is the great architect of our enjoyments—it is in fact the creator of them; and it may be laid down as an axiom, that the culture of the mind keeps pace with the culture of the material products which nature spontaneously furnishes. The savage—the hero of J. J. Rousseau, and

those who have taken up patches of the mantle of the Genevese philosopher, has few occupations, and he stands like a desolate thing on the verge of social existence. His slow progress towards civilization is in the steps of industry. At first he is contented to gather the spontaneous fruits which the forest produces, and to pick up the shell-fish which are strewed on the shore; but after a time he becomes a hunter, feeds himself with the flesh of the wild animals of the chase, and clothes himself with their skins. As his intellect expands, he perceives that the proceeds of the chase are precarious, and he exchanges the life of a hunter for the more certain one of a herdsman and a shepherd. The transition is marked by amelioration of his condition, his passions are softened down, and his reason cultivated, and he finds it easy to add an unfailing supply of vegetable food to the produce of his flocks: he becomes an agriculturist. He now longs for comforts, variety of diet, better clothing, and more commodious lodging; and in order to produce these, he becomes a manufacturer. Here he enters upon the last stage of improvement, and he wends his way onward by the all-conquering force of industry, acquiring at every additional step new facilities of administering to his desires, and new capabilities of subduing the powers of nature, and rendering them subservient to his convenience.—*Farmer and Mechanic.*

GOOD AND BAD FARMING.

Look at the contrast between a good farmer and a bad farmer—between a neat thrifty cultivator of the soil, and a slack and slovenish aggravagator of it. The buildings of the one, whether large or small, are all in good repair. The premises about them are clean, and unincumbered by piles of rubbish and brush. His wood is cut and placed under cover in proper season. His tillage and mowing fields are clean of weeds, bushes, and stones. His walls and fences have no unsightly gaps. His fruit trees are well trimmed and well cultivated, and are kept free from cattle and catterpillars. His barn-yard or barn-cellar evinces the high value he places on manure, by the care he bestows in making and saving it, and his lands from year to year, show that they experience the full benefit of a right application of it. He is at work, boys and all, before the sun. While he finds time for the discharge of his political and other public duties, he spends little or none of it by the way-side, in discussing the affairs of the nation or the gossip of the village. He takes a newspaper to tell him how the government and the world jog on, and an agricultural paper to give him an idea of the improvements to be made in his own occupation.

The buildings and premises of the other exhibit many a symptom of neglect and premature decay. A barn door, perhaps, for loss of hinges, is propped up by rails or stakes. The frame-work of a shed is all that remains of what was once a shelter for his stock. Brush-wood and trunks of trees lie in fantastic confusion about his doors, whilst the skeletons of departed carts, and wheels, and sleds, and plows, line the road-side for a considerable distance, as you approach his dwelling. Walls and fences are so enveloped in bushes, as to be almost imperceptible. His barn-yard is washed and drained by a convenient declivity leading either to the road-side, or a neighboring stream. His tillage land is impoverished by repeated croppings and a stinted allowance of food. Thistles, johnswort and mullein, or some similar specimens of vegetation, hold title to his mowing fields by right of uninterrupted occupation. He rises not before the sun tells him it is day. He is generally behindhand in his work. His crops suffer for want of due care and harvesting. He carries to market an inferior article, gets an inferior price, and then complains to everybody he meets of hard times and the hard life a farmer has to lead. Of course, he is quite ready to lay the blame upon any shoulders but his own, and the government, either state or national, has very often to bear no small share of it.

By a process recently invented, the rays of the sun, striking upon a person's countenance, portray, in an instant of time, an exact miniature of his features. The same art has also been applied to give a faithful birdseye view of groups of objects and men. Every attitude, every lineament is struck off, in a twinkling, with all its beauties or blemishes, just as they are in the originals. Suppose the Daguerrotype were employed to seize the striking points of each farm in this county, and that the pictures, thus produced, were suspended on these walls for inspection. Would there be no contrasts exhibited in the panorama? No features which would willingly be erased? No whole pictures which would gladly be turned face to the wall?

No former who has any pretensions to the name, when he looks upon the two extremes to which his noble art may be elevated or degraded, would hesitate which to choose for the object of his endeavors. If he elect the good farmer as the model of his imitation, he will need something more than mere wishes and resolutions,—than sudden starts and occasional exertions, to realize in his character the enviable distinction of a skilful cultivator of the soil. It is not the work of a day or of a year, but of many years, truly to earn and deserve this title. It is laborious, patient, persevering and intelligent working, that is to do it. He must take an honest pride in his profession; never to be ashamed of his hard hands, home-spun frock, or toilsome occupation. His motto should be, "Whatever is honest is honorable," and farm-labor is pre-eminently so. His heart and his head, as well as his muscles and sinews, must be in his work. He must endeavor not only to make his farm profitable, to gain from it the most he can at the least expense, but to keep it in a constantly progressive state of improvement.—He will have his attention awake at all times, to the means of effecting this. He will not lay out for cultivation more ground than he can manure well, cultivate well, and leave in better tilth than he found it. He will remember another axiom of the good farmer, "that whatever is worth doing at all, is worth doing well." He will ever bear in mind, too, that his own farming, however excellent and successful, may still be made better and more profitable.—[*Address of A. W. Dodge, Esq., before Barnstable Agricultural Society.*

PROFITS OF FARMING.

Messrs. Editors:—The remarks of your correspondent Z., "on the Profits of Farming," are just, and will be appreciated by many who have witnessed, in their own persons, the pleasures and pains which he there depicts. I myself am a living witness of this truth, and with your permission will relate my experience, as a warning to those who may become in danger of falling into the snare, for so I must term it.

Having been for some years a slave to business in the city, sometimes rich and sometimes poor, according as my customers were punctual or otherwise, and finding my capital in the hands of men scattered to the four quarters of the earth, I at length determined to be my own master, and live an independent life. I therefore sold out my town business, and with the proceeds purchased a farm of 300 akers "in the vicinity of schools, churches, mills, good society and stores of every description," as the bill of sale expressed it, intending to devote myself to its cultivation, without, however, depriving my wife and family of the opportunities of recreation and amusement they had been accustomed to enjoy, or descending myself into "the mud and mire of the profession," as it has been termed; calculating that the owner of 300 akers of land might be considered a degree above that; and having no doubt that such a farm well managed, would certainly entitle me to the expectation of an easy, comfortable, but active life. After, therefore, stocking the farm with every description of improved machinery, implements of husbandry, and the finest breeds of cattle, I removed to my new habitation without incumbrance, with a healthful body and thankful mind.

While in business I had indulged in keeping a carriage, more for the accommodation of my wife and family than my own pleasure, and at their request I continued it, (they urging upon me the indispensible arrangement, now that they were removed farther from church and shops than a walking distance,) as I calculated it would not often be in requisition, and my team of trotters could be exchanged for a pair of horses of stouter frame and more suitable for the plow. The plowman also, merely by the addition of an extra suit of clothes, a band around his hat and a pair of gloves, being easily transmuted into a very decent coachman. I therefore commenced in the spring of 1844, with breaking up a piece of sod ground for corn, and never shall I forget the first morning of my new existence. Being up so early as to make me fear the sun would never rise, I ac-

companied the plow into the field and witnessed the turning of the first furrow on my own land, a sensation it is not possible to describe by any figure of speech or mode of expression. I remember also, of accusing my wife of summoning me to dinner an hour before the appointed time, so full was I of my own occupation, while the appetite with which I met them at that meal,—O, it was then that I began to live, I had only subsisted before. At night, too, although so much fatigued as to be scarce able to reach the house, the rest which I experienced was past understanding, and convinced me of the truth of the axiom, "a man will sooner *rust* out than *wear* out."

All this was good, very, but I soon found that some parts of my arrangements did not work exactly according to my expectations. And first, my coach; plowman informed me he must be allowed extra corn for his horses, with less work on the farm, or they could not be expected to make a suitable appearance in a gentleman's carriage; more time also must be given to fit them for afternoon drives, with the family, as they were almost sure to meet the family carriage of my neighbor Leslie, whose estate is not so extensive as mine, but who makes a dashing appearance. My fine stock, too, drew numerous visitors, who, as they generally happened to drop in at dinner-time, were loud and diffuse in their praise, having opportunity—*as I killed my own mutton*—of judging them by more than ocular demonstration. In short, I soon found that both ends would not meet, but should have been at a loss to account for it (as I resided on my own estate, free of encumbrance,) had I not taken counsel of a plain, industrious neighbor, who managed to save money on a rented farm, one-third only the size of mine, but with not one-third its advantages. His remarks were so concise, and to the purpose, that I found no difficulty to understand and feel their force. Said he, "Squire, I consider the akers of a farm in the light of the store of the business man—a place to do business in, and nothing more. Land, you know, pays no rents, it is the crops that are raised on it that do this and support a family. Now, you know I do not *rent* more than one-third the land you *own*, but you know also, that I sell more than you do at the market, while my family expenses are as nothing when compared with yours. Indeed, I have often wondered how a mere difference in the first value of our farms—or stores, for it is nothing more you see—should enable you to support such a very different establishment: for if nothing is sold at the market, what on 'arth is to pay rent and expenses and support a family? Farming is good, and so is gentlemaning, but they do not work well together. The coach may support the plow, but it is too much to expect the plow to support the coach, unless there is a fund to fall back upon. Indeed, for a farmer to succeed in his business, he must "handle his tools without mittins;" he must be early and late, and eat the bread of carefulness, keeping no more cats than catch mice. You have often heard the saying, "'Tis not every Jack that will make a gentleman;" you now see, "'Tis not every gentleman that will make a Jack."

This, it must be admitted, was what my neighbor called a "pretty plain discourse," but as I had drawn it myself, I was bound to bear it, and it is my intention to profit by it.

L. D. L.

New Brunswick, N. J., 1847. *Bost. Cult.*

MANAGEMENT OF HEDGES IN ENGLAND.

BY J. POTTER.

Messrs. Editors:—Having for some time past been much pleased in reading the Prairie Farmer, in which I find frequent communications on the cultivation of thorn hedges, I venture to suggest a few ideas on this important department of your western farming, which are the result of some years experience in the best cultivated parts of Yorkshire, in England, where I have raised, and seen them raised, in every shape and form.

To begin with the A B C of the subject. The stones should be gathered in the fall and deposited in a trench dug two feet deep in some dry sound earth; if a small quantity, it is best to have them in a wooden or earthen vessel. In the spring they may be planted out in a seed-bed, four feet wide, and covered about an inch with earth. By being kept clear of weeds they will then go on all right until the following spring, when they may be planted out in rows two feet apart, there to remain until they are from two to three feet high, when they will be ready for planting where the fence is desired. To have the ground intended for the fence in good order, it is best to have it well plowed up in the fall previous to planting, four or five furrows broad, leaving a good deep furrow where the fence is to stand, so that it may be well tempered by the frost, air, and atmosphere, through the winter, and plowed back before planting. In the spring following, the fence may be planted, the plants six inches a part, with the top on, as they come out of the nursery; they will get well rooted the first year. Then in the spring following, with a sharp knife, cut off the top of each plant level with the surface; they will then give five or six branches to each stem. All that is then needed, to produce a thrifty, noble hedge, is to keep it clear of weeds twelve or eighteen inches on each side of the stems, for the first three or four years. Let this be done, and I must have ocular demonstration of the fact before I can be made to believe that thorn hedges will not succeed as well in the United States as in Europe. I have never seen it fail in a single instance, neither do I expect to. A. Farmer.

New York, Feb., 1847.—*Prairie Farmer.*

BEE-HIVES.

BY D. LATHROP.

Messrs. Editors:—I think your remarks upon the size of a bee-hive, in the Octoble number of the 6th volume of the Prairie Farmer are liable to lead to an error in practice. You say a hive should be just large enough to contain the bees, and honey sufficient to keep them through the winter, and no more. Now that is true in a qualified sense only. If additional room is given them through the summer, by way of appurtenances to the hive, which may be removed, with their contents, in the fall, then your remark is correct. You go on and fix upon what that size should be, viz: a box ten inches square in the clear, or 1000 cubic inches, which is less than half a bushel. Now I think you have marked at least fifty per cent. too low. It is true, a box of that size will hold from thirty to thirty-five pounds of bees and honey, if the whole space was filled with comb and the comb filled with honey. But the comb is not always filled with honey, for the reason that a portion of it is filled with bee-bread, and a portion with young bees; and the honey contained in the balance might not be sufficient to winter the swarm.

La Salle co., March, 1847.

Mr. Townley of New York, an apiarian who perhaps has made more experiments with bees than any man in the country, uses a hive about nine inches square in the clear, only; deeming this amply sufficient. Perhaps so small a hive would not be safe to recommend for general use, from the fact that Mr. T's skill and care in supplying deficiencies are not general. A writer in the American Agriculturist, who keeps his bees on a farm, recommends twelve inches square, in the clear. We are persuaded that the true size is somewhere in that vicinity. Of course, a part of the surplus honey should be taken away by means of drawers or boxes, placed on the top or sides of the hive; as a healthy swarm will much more than fill such a hive.

We lost a hive this season in March, which contained near forty pounds of honey. Now of what use was all this store? If the swarm had not died, it would have been left to summer over—so much useless capital.—*Prairie Farmer.*

To Cure a Burn.—A lady, preacher of the society of Friends in New York, was so successful in curing burns that many supposed her possessed of the power of working miracles.

The following is the recipe for that salve: "Take one ounce of beeswax, with four ounces of burgundy pitch, simmered in an earthen vessel together, with as much sweet oil as will soften them into the consistency of salve, when cool. Keep it from air in a tight box or jar. When used, spread it thinly on linen cloth, and apply it to the part injured. Open the burn with a needle and let out the water till it heals."

EGGS AND POULTRY.

Among all nations, and throughout all grades of society, eggs have been considered a favorite food. But in our cities, and particularly in winter, they are sold at such prices that few families could afford to use them at all, and even those in easy circumstances consider them two expensive for common use. There is no need of this. Every family, or nearly every family, can, with very little trouble, have eggs in plenty during the year, and of all the animals domesticated for the use of man, the common dunghill fowl is capable of yielding the greatest profit to the owner. In the month of November, I put apart eleven hens and a cock, gave them a small chamber in the woodhouse, defended from storm, with an opening to the south. Then food, water and lime were placed on shelves convenient for them, with nests and chalk nest-eggs in plenty. These hens continued to lay eggs throughout the winter. From these eleven hens I received an average of six eggs daily during winter; and whenever any one of them was disposed to sit, namely, as soon as she began to chuck, she was separated from the others by a grated partition and her apartment darkened. These chucklers were well attended to and well fed. They could see and partly associate through the grates with the other fowls, and as soon as any of these prisoners began to sing, she was liberated, and would very soon lay eggs. It is a pleasant thing to feed and tend a bevy of laying hens. They may be tamed so as to follow the children, and will lay in a box. Egg-shells contain lime, and when in winter the earth is covered with frost or snow, if lime be not provided for them, they will not lay; or if they do, the eggs of necessity must be without shells. Old rubbish lime from chimneys and old buildings is proper for them and need only to be broken. They will often attempt to swallow pieces of lime and plaster as large as walnuts. The singing hen will certainly lay eggs if she find all things agreeable to her, but the hen is so much a prude—as watchful as a weazle and fastidious as a hypocrite—she must, she will have secrecy and mystery about her nest. All eyes but her own must be averted. Follow or watch her, and she will forsake her nest and stop laying. She is best pleased with a box covered at the top, with a back side aperture for light, and a side door by which she can escape unseen. A farmer may keep one hundred fowls in the barn, may suffer them to trample on and destroy his mows of grain, and have fewer eggs than the cottager who keeps a dozen, provides secret nests, chalk eggs, pounded bricks, plenty of corn or other grain, water and gravel for them, and takes care that his hens be not disturbed about their nests. Three chalk eggs in a nest are better than one, and large eggs please them most. I have smiled to see them fondle round and lay in a nest of geese eggs. Pullets will begin to lay early in life, when nests and eggs are plenty, and when others are chuckling around them. A dozen dunghill fowls shut up from the means of obtaining food, will require something more than a quart of corn a day. I think fifteen bushels a year a fair allowance for them; but more or less, let them always have enough by them; and after they have become habituated to find at all times a plenty in their little manger, they take but a few kernels at a time, except just before going to roost, when they will take nearly a spoonful in their crops. But just so sure as their provisions come to them scanted or irregularly, so sure will they raven up a whole cropful at a time and stop laying. A dozen hens well attended, will furnish a family with more than two thousand eggs a year; and one hundred full-grown chickens for the fall and winter stores. The expense of feeding a dozen fowls will not amount to more than eighteen bushels of grain. They may be kept in cities as well as in the country, will do as well shut up the year round, as to run at large A grated room well lighted, ten feet by five, partitioned from a stable or other outhouse, is sufficient for a dozen fowls with their roosting, nests, and feeding troughs. In the spring of the year, five or six hens will hatch at a time, and the fifty or sixty chickens may be given to one hen. Two hens will take care of one hundred chickens well enough until they begin to climb their little stick roosts. They then should be separated from the hens entirely. I have often kept the chickens when young in my garden. They keep the May bugs and other insects from the vines. In case of confining fowls in summer, it should be remembered that a ground floor should be chosen; or it would be just as well to set in their pens, boxes of well dried pulverized earth, for them to wallow in during warm weather. Their pens should be kept clean.

Scottish Reformer's Gazette.

A CHAPTER ON CHEESE.

By all it seems to be admitted that the raw material of the dairy produce of Scotland, is in no respect inferior to the milk drawn from the udders of kine grazed on the richer pastures of England. Why, then, should our cheese be found so inferior in flavor, that it is generally incapable of competing with the staple ware of Cheshire, Gloster, and some other counties? This, to those more immediately concerned, becomes rather an important question; for years there has been a growing tendency to, and gradual extension of dairy husbandry in Dumfreshire and Galloway; and as hints in these circumstances obtained alike from careful inquiry and personal observation, may prove acceptable to numbers engaged in a most useful branch of rural industry, they are here respectfully submitted as a stimulus and encouragement to the future improvement.

In the indictment against Scotch cheese, three principal counts are laid by our neighbors the English. First, that it is of too soapy a nature when opened, the curd being spread in layers, and not sufficiently worked together to form one solid mass—a feature at all times recognizable in a newly cut Cheshire cheese. Secondly, that it lacks the necessary degree of firmness, not having been well and frequently rubbed with salt when in the vat, and again when taken out of it. Thirdly, that it crumbles down when the knife is applied like a piece of broken short-bread, or over-baked oaten cake. Now, as these objections are each and all removable by increased vigilance on the part of dairy maids, mistresses, and masters, their intelligence is directed to the following points, in the hope that if they are attended to, Scotch cheese will rise into favor, and realize higher prices than at present in the markets of the South.

Preparation of the Steep.—A bad practice prevails extensively in the dairy districts of Scotland which cannot be too soon abandoned, that is, keeping the *steep* months, and even years in bottles. This practice, in all cases, assumes the form of economy misplaced; for, when preserved ever-long, the liquid that curds becomes putrid, and imparts a disagreeable taste to the cheese. In Cheshire, a morsel of the dried salted calf's stomach, or reed, is steeped in water for twenty-four hours, at the end of which time he is fit for use. A just medium in the use of the steep is of as much importance as nicety in the case of medicine given to the sick; for wherever the mark is overshot, the curd becomes so tough, that the greatest difficulty is experienced in expressing the whey. Just what will curdle and no more, constitutes, in every well-managed dairy, the proper quantity; and not a single particle more should ever be applied.

Management of milk previous to curding.—The temperature of milk newly drawn is from 78 to 90 degrees. In small dairies it generally becomes necessary to add the evening's milk of the previous day to that obtained the following morning, in the preparation of an ordinary sized kebbuck. To produce, therefore, equally of temperature, as near as may be, the cold milk must be warmed. In Scotland, this is done by placing it in an iron boiler hung over a strong fire, and unless great care be taken, the liquid becomes singed, or firefanged, to use the technical expression.—Wherever this occurs a kindred taste is communicated to the cheese, a quality which renders its use objectionable in the estimation of competent judges. In Cheshire, in place of an iron vessel, the previous evening's milk is poured into a tin pail, covered and placed in the boiling water in the iron boiler, stirred frequently and brought to the proper degree of temperature, on the same principle that a joiner melts his glue. In this way, by avoiding over-heating, the cream of the cold milk is retained in its natural state and not transfused into a compound of oil, a change which superinduces deterioration, and is alike incident to overheating and sudden transition from one state to the other. No dairy should be without its thermometer. In every respect it is as necessary as the same simple and most useful instrument, hung in a hot-house where grapes grow, and exotic

flowers and nothing should be left to the finger of the dairy maid, however delicate her touch, and lily her hand.

Curd.—The curding of milk should in no case be hurried. In many parts of Scotland half an hour is the usual time allowed, while in Cheshire the healthful produce of the udder remains undisturbed an hour and a half at least, after the steep has been applied. When the process is hurried, the coagulated substance becomes so tender that the separation of the whey is effected with difficulty. The curd, when lifted, is placed on a strainer full of holes, which affords a free passage to the more watery particles, separation being gently assisted by the hand. The next step, when solidity is acquired is to pass the mass, whether large or small, two or three times through the curd-mill breaking machine. This instrument forms, in England, an essential adjunct to every dairy.

The Cheese Press.—The instant the curd leaves the breaker mill, it must be well kneaded by the hand, for the purpose of expelling latent or lurking drops of whey, and reducing it to as compact a state as possible. In Scotland, after the curd leaves the cheese vat or chessel, it is laid under heavy weight, in many cases violently, forcibly, and too quickly. This practice, however ancient, is the reverse of scientific; and, in point of fact, the slightest reflection may convince any one, that superfluous and quick pressure, in the first instance, tends to press out portions of fatty juice that would be much better retained by all who value richness of flavor, character in the market, and respectability of price. At Mr. Harper's, Townfoot and Mr. Johnston's, Newton, parish of Closeburn, a light wooden press is used, of a simple construction, which we recommend, previous to having recourse to heavier metal; and at both these dairies, the article produced abundantly proves that the milk of the Ayrshire cow, under skilful management, is capable of producing cheese equal to anything manufactured in England. In Cheshire, the curd is placed without a cloth in the mold or chessel; a wooden lid is laid on the top, and then gentle pressure for three hours, exactly after the fashion of the practice at Townfoot and Newton. When the press is unscrewed, and the lid removed, the incipient cheese is pierced with a wooden skewer, that all the remaining whey may escape at bottom; and the hands of those in attendance, so far from being idle during this operation, are found nimbly assisting in giving it more pressure. The curd is then taken from the mold, wrapped in a clean cloth, and gently rubbed outside with finely powdered salt. Pressure succeeds, although gently at first, and the same rubbing and squeezing processes are repeated three or four times over, at intervals of about every five hours, additional pressure being employed on each occasion, until the article is finally withdrawn from the mold, and duly seasoned. In Cheshire scarcely any salt is mixed with the curd, from the opinion that it tends to sharpen over-much the taste; while, by repeated rubbing out side, the same end is attained, so far as curing goes, and the disadvantages incident to the Scotch mode avoided. Removed from the press, the cheese is placed on a flat stone, kept in a cool place, roomy enough for holding six or seven, and sprinkled plentifully with salt on the top, as well as on the floor fixture. The cheese is daily turned — its bottom put uppermost, and salt laid on it. When the first supply melts, the stone receives additional sprinkling. In the case of a large cheese, the imbibing process occupies a week or ten days, or even longer.

Seasoning Cheshire Cheese.—After the cheese is well salted in the manner described, it is carefully washed with warm water or whey and dried with a cloth. It is then carried to the kitchen, and placed on a shelf within two yards or so of the chimney fire, where it remains a fortnight, until deposited in the cheese-room, an apartment which should be perfectly free from damp. A good article will always feel a little greasy to the touch. Seasoning is a matter of great importance; and by greater attention to this department, the salted produce of the home dairy might be brought to bear exportation by sea, in the warmest weather—an experiment considered hazardous at present, the sponginess and softness that wait on marine influence forming too often the penalty of indifferent curing.—*Dumfries Courier.*

One foot of atmosphere will hold twelve grains of water in solution.

AGRICULTURAL CAPABILITIES OF GEORGIA.

I have recently moved from the flat, low lands of Burke, for health's sake, to the hilly section of middle Georgia. This part of the country is as broken as any part of New England, but there are no high elevations. The streams are numerous, and most of them are bordered by very fertile, low grounds.

The hill-sides were originally free, productive lands, and where the soil still remains, are yet good, but the system of skimming with a set of queer-shaped irons, misnamed plows, which loosen about as much of the surface as the summer's rains can easily carry down the steep hill-sides, into the creeks and bottoms, has left this part of the State shorne of its primitive fertility and beauty, and it now presents a mornful spectacle of galls and gullies, and denuded hill-sides, the unmistakable indications of an erroneous system of cultivation.

Yet there is much of this country, that with proper management may be brought back to a state of fertility, and is not surpassed for advantages of location, perhaps in the world.

There is probably no country in which can be produced a greater number of the staple commodities and luxuries of life, than middle Georgia. Cotton, all the grains and fruits of the northern and middle States, thrive here exceedingly well. In fact, I have seen some fine crops of wheat raised here, under no other culture than being sown upon the unbroken ground, and plowed in with a bull-tongue plow.

Many of the fruits of warm climates thrive well, as grapes, figs, almonds, apricots, pungranites, &c. All valuable roots and tubers, from a pea-nut to a sweet potato, we have, (or can have,) in abundance.

There are here, generally, two varieties of soil; the stiff red land, with a subsoil of pure red clay; and upon the surface a large quantity of white silicious rock is disseminated in small fragments, so that in some situations, to nearly cover the whole surface, but not to a depth to materially obstruct the cultivation. This soil requires a great amount of rain through the growing season to produce well; but with this, it usually yields abundant returns for the labor bestowed. The farmers upon this soil usually do not break it to a greater depth than two or three inches. If it were subsoiled to the depth of a foot, it would probably stand drouth much better. This soil is well suited to Indian corn, and the smaller grains. The other variety is a gray land, formed, I think, from the detritus, or decomposition of ganite, gneiss, and a greenish rock, into the formation of which hornblende enters largely.

There are numerous examples of the decomposing of granite boulders in this section, in all stages of decomposition. They seem to crumble down into their original elements.

This gray soil is better adapted to cotton and roots; the different varieties of the sweet potato flourish finely in the gray soil, as also peach and other fruit trees.

There is an intermediate soil, possessing eminently the advantages of both, called "*mulatto*" land, of a chocolate color, with a very stiff clay subsoil. This is remarkably good; but neither this nor the red land is as sure as the gray, because a short drouth does not affect the gray as it does the others.

The gray land is mostly quite porous, containing much of the gravel formed by the crumbling of the granite. These soils are frequently found separated only by a narrow drain, the opposite sides of which are marked with great distinctness, being often in perfect contrast. Sometimes they run into each other by insensible gradations.

Now, if a chemical analysis was entered into to determine the most suitable manure for these soils, is it not reasonable that a distinct analysis should be instituted for different parts of a field, according to the different variety of soil presented upon the surface? These lands can be purchased of farmers wishing to go west, for from two to three dollars per aker, and are readily improved; farms ofter containing a portion of low grounds or creek bottom, worth at least twenty-five dollars per aker.

Timber is getting scarce on some farms. Will chestnut bear transplanting? If it will, abundance of it can be procured on the poorer ridges in this section.

This I consider a favorable location for northern emigrants, who wish to change their residence of account of pulmonary diseases. PAUL DAVIDSON.

RATTOWN, Ga., Feb. 8. *Alb. Cult.*

VARIETIES OF SOILS.

Some of the most valuable improvements in modern agriculture proceed from the discovery, that all plants do not exhaust from the soil, in which they grow, the same ingredients or component parts of it; and that no two plants of a different kind abstract the same proportion of each ingredient.

Hence, beyond all question, it is established: 1st. That every kind of soil is, in its natural state, fitted for the production of some one or other of the thousand plants that cover the earth; and 2d. That the addition to it, by human labor, of those ingredients or substances of which any soil is deficient will fit it for the production of plants that require those ingredients.

Careful examination has also shown that silicious or flinty matter not only constitutes a large proportion of all soils, but also the largest ingredient in the composition of oats, wheat, Indian corn, rye and barley. It also demonstrates that certain other substances, of which lime is always one, are contained in these and other plants, a very large proportion of it entering into the composition of clover and corn.

From these facts, it follows that the addition of lime to soils from which it is naturally absent, must confer upon them the power to produce those useful plants, especially corn and clover, so far as unproductiveness of them was caused by its absence.

The same may be said of potash, soda, magnesia and certain acids, all of which are ingredients in most of the useful plants.

In this view of our soils, the presence of limestone in large quantities, in any county, is second in value to that of no other mineral; not even excepting coal or iron.

For, as the productions of the farmer are indispensable to persons in every business, and as the proper application of lime to the soils which are destitute of it, will convert them into fruitful agricultural districts, the value of limestone must be beyond that of any mineral we possess.

Nor does this good effect alone follow the addition of lime or any other single substance of which a soil happens to be deficient. The mixture of entire soils with each other often has the same result. For instance, the carting of a certain proportion of the surface of rich boggy or bottom land upon upland, or the reverse, the addition of pure sand to stiff clay fields, or the application of any other soil to one of an entirely dissimilar character, has generally the same beneficial effect.

In all these cases, the applied soil being dissimilar from that to which it is added, the chances are, even without the certainty of a scientific analysis, the productive substances have been obtained, and consequently that productiveness will be increased.

In this way there is great truth in the remark, that, in the hands of a judicious farmer, almost every farm contains, within its limits, the means of its own fertilization.

Exchange paper.

ROTATION OF CROPS.

There is living in Northampton county, Pennsylvania, on the bank of the Lehigh, a very aged man, whose success in falling upon a system of rotation, by which he could obtain the greatest possible yield of wheat, in a given term of years, has caused it to be generally adopted in that fertile region. It is called Sheimer's system, after the discoverer, Jacob Sheimer, whom I had the curiosity to visit at his most substantial homestead some years ago, and from whom I obtained the following account:

When a young man with a large family of children growing up around him, and dependent on him for support, he plainly perceived that under the rude practice then existing, he would not be able to maintain them. He often thought over his difficulties while following the plow, and at length determined upon his plan; which followed up without faltering, has conducted him in the decline of life to ease and affluence.

When I saw him he had resigned the active duties of his farm to a son, who was following in his footsteps; after having himself practiced his system of rotation for thirty-five years, with a constant improvement in the quality of his land; which indeed had the unmistakable stamp of fertility upon it.

The farm contained one hundred akers, which was divided as nearly as possible into eight fields of twelve and a half akers; each of which was carried through an eight years' rotation.

Commencing with a fallow field, he the

1st year. Manured and limed; plowed three times, in May, June and August; harrowed and seeded one bushel and three pecks per aker of wheat, which was plowed under.

2d. Clover seed sown on wheat in the spring, six quarts to the aker, which was pastured after harvest.

3d. Plastered clover in the spring, one bushel per aker; cut in June, and plowed under second crop, and seeded again with wheat.

4th. Wheat—same as number 2.

5th Pastured early in the season, plowed under second crop in August, and sowed wheat.

6th. Wheat again, and rye sowed on stubble.

7th. Sowed clover seed in spring on rye.

8th. Plowed under clover sod and planted corn; and next season recommenced.

It will be observed that there were every year three fields in wheat, one with rye, one with corn, two with clover, and one fallow. The produce had one season reached as high as 1,400 bushels of wheat, 600 bushels of corn, and 300 bushels of rye.—*Hon. Morris Longstreth's Address.*

GAPES IN CHICKENS.

Messrs. Editors:—From all I have seen and heard on the subject of what is called the gapes in chickens, it is a disease which is not generally understood. I shall therefore give you my opinion on its nature and cure. This spring, having my chickens attacked as usual with the gapes, I dissected one that died and found its *Bronchus* or *wind-pipe* (not the throat,) filled with small red worms from half to three quarters of an inch long. This satisfied me that any particular course of feeding or medicine given would not reach the disease. I therefore took a quill from a hen's wing, stripped off the the feathers to within an inch and a half of the end, trimmed it off with a scissors to about half an inch wide, pointing it at the lower end. I then tied the end of the wings to the legs of the chicken affected, to prevent its struggling, placed its legs between my knees, held its tongue between the thumb and fore finger of the left hand, and with the right, inserted the trimmed feather in the windpipe (the opening of which lies at the root of the tongue,) when the chicken opened it to breathe, pushed it down gently as far as it would go (which is where the windpipe branches off to the lobes of the lungs, below which I have never detected the insect,) and twisted it round as I pulled it out, which would generally bring up or loosen all the worms, so that the chicken would cough them out, if not, I would repeat the operation till all were ejected, amounting generally to a dozen; then release the chicken, and in the course of ten minutes it would eat heartily although previous to the operation it was unable to swallow, and its crop would be empty unless filled with some indigestible food. In this manner I lost but two out of forty chickens operated on; one by caughing up a bunch of the worms which stuck in the orifice of the windpipe and strangled it—the other apparently recovered, but died several days after in the morning; in the afternoon upon examining its windpipe, I found a female worm in it, differing from the others by branching off at the tail in a number of roots or branches, between each of which were tubes filled with hundreds of eggs like the spawn of a fish; and although the chicken died in the morning, the worm was perfectly alive in the afternoon, and continued so for half an hour in warm water. While I was examining it in a concave glass under a microscope, it ejected one of its eggs, in the centre of which was an insect in embryo.

From this fact, I have come to the conclusion that when

the female worm breeds in the chicken and kills it, these hundreds of eggs hatch out in its putrid body in some very minute worm which probably after remaining in that state during the winter, change in the spring to a fly which deposits its eggs on the nostril of the chicken from whence they are inhaled and hatched out in the windpipe, and become the worms I have described.

There is one fact connected with this disease—that it is only old hen roosts that are subject to it; and I am of opinion where it prevails, if the chicken-houses and coops were kept clean and frequently whitewashed with thin whitewash with plenty of salt or brine mixed with it, and those chickens which take the disease, operated on and cured, or if they should die, have them burned up or so destroyed that the eggs of the worms would not hatch out, that the disease would be eradicated.

I am also satisfied that the chicken has not the disease when first hatched; several broods that I carried and kept at a distance where the disease prevailed, were entirely exempt. And chickens hatched from my eggs where they had never been troubled with this disease, were perfectly free from it; and a neighbor of mine who built in the woods half a mile from any dwelling, and has raised fowls for half a dozen years past, and has frequently set my eggs, has never had the gapes among his chickens.

With my first broods of chickens, there was not one escaped the gapes. But all that have been hatched since I had the chicken-house and coops well whitewashed, inside and out, with thin whitewash, with plenty of brine in it, and kept clean, have been exempt from the disease, with occasionally an exception of one or two chickens out of a brood.

In operating on the chickens, although one person can effect it, it is much easier done to have one to hold the tongue of the chicken while the other passes the feather down its windpipe, and by having a small piece of muslin between the fingers, it will prevent the tongue from slipping, which it is apt to do upon repeating the operation.

Yours, &c., C. F. Morton.

Mill Farm, New Windsor, Orange Co., N. Y.

Albany Cultivator.

DIRECTIONS FOR MAKING A HANDSOME CARPET.

Sir:—In your paper of April 1st, I noticed a letter from "Rosella," asking information about coloring, &c.; and the thought just entered my mind, that our sister Rosella, (whom we suppose is by this time married and pleasantly settled in a neat white cottage of her own,) might be wishing to make a carpet for her best chamber, hall or dining room, and feeling willing to grant all the assistance in my power, to aid a young and inexperienced "farmer's wife," in the discharge of her arduous duties, I here present the following directions for making a cheap, handsome, and durable carpet.

Take of the coarsest wool, (that which is often thrown away by improvident farmers will do,) cleanse it thoroughly, pick, and prepare for the machine, in the usual way. When carded, out of fifteen pounds of rolls spin as many runs of yarn; this will be sufficient to make twenty-four yards of good broad carpeting. The method of spinning is to cross the band of the wheel and spin two rolls at a time instead of one in the usual manner. This makes a very strong yarn and saves the trouble of doubling and twisting. After the yarn is spun, great pains should be taken in washing, and rinsing it, so that it may take a good color.

For dark green take two runs of yarn and place in a common indigo dye, carefully wringing and shaking it at least three times in a day (to prevent spotting) until it becomes a good deep blue. Then rinse and dry it. Then prepare a strong yellow die, made by boiling the leaves of the peach tree in soft water, for three or four hours at least; and after soaking the blue yarn in a strong alum-water for five or six hours, place it in the yellow dye, frequently raising it to the air; continue this process for four hours, and you have a beautiful dark green which will never fade.

For light green; take the same amount of yarn and reverse the order of coloring, making it first a bright yellow, and then giving it but a light shade of blue. These two colors will make a beautiful shaded stripe of green.

For red, make a strong madder dye prepared in the following manner: Soak two and a half pounds of good madder in vinegar and water for twelve hours; then place it in a large brass kettle with at least two and a half pails of soft water. When boiled (but not boiling) dip in it one and a half runs of yarn, (having been previously soaked in alum water for several hours,) and let it remain five or seven minutes, raising it two or three times to air. Then wring and carefully shake it over your dye kettle (or you will lose much of your madder,) after which rinse it in soft water and pour the water into the dye. This yarn will be almost as bright as scarlet and quite as beautiful in a carpet. Now place the dye where it will keep in a state of simmering, put in it two and a half runs of yarn prepared as the former, and color for three hours and you have another shade of beautiful red. Remove this from the dye, and place in it one-half run more, and let it remain three or four hours; this will be a pale red color, and serves for the purpose of shading.

For pink, take one ounce of pulverized cochineal, tie in a linen bag, and place it in two quarts of soapsuds, (made with fine hard soap.) This will dye one-half run of yarn, which should be divided and a part dipped first, and remain a few minutes before the other is put in, to give a different shade. The whole to remain about two hours, with occasional airings.

Purple.—One run of yarn may be colored purple by boiling a handful of logwood in the remains of the madder dye, and adding the alum water. This will not fade.

Yellow and Black.—One run of yellow may be colored as directed for the light green. To this add three rues of yarn colored black, in a strong logwood die set with blue vitriol, a half run of pale blue and the same of white, and you have the chain for a handsome carpet.

Eight pounds of cotton carpet filling will now be required to complete the whole, which can easily be dyed by throwing the remains of the different dyes into a large kettle and boiling the whole together. Care should be taken in the arrangement of the colors, and the web should be woven at least a yard wide.

We have just completed a carpet made after the foregoing directions, and although the expense (time and labor included,) has been less than twelve dollars, we would not now exchange it for any imported carpeting for which we should have to pay one dollar per yard. Mary.

North Rochester, Lorain Co., O., May, 1847.

DEAD ANIMALS.

At all seasons of the year dead animals are to be seen hung upon fences and trees; and especially is this the case in the spring. On every farm where sheep are kept, dead lambs are suspended in the beautiful, blooming and fruit-bearing orchards—how shocking?—to annoy the sight and smell, and waste the farmer's means. Dogs and cats, too, are frequently hoisted in view in the same annoying and disgusting manner. If horses, cattle, sheep, or hogs die, they are drawn out of sight, but not out of smell, and are still sources of disgust. Why is all this? If the farmer be so unfortunate or so negligent as to lose an animal, should he be so wasteful as to permit the carcass to decay uselessly in the open air, to the great annoyance of his family and every passer by? Does he not know that animal matter is the best and richest of manure? Animal matter contains every element that is necessary to grow every plant known. In it are phosphate and carbonate of lime, ammonia, carbon: in short, in the best form, all the essentials of vegetable growth. Its nutritive power is great, and if added to the compost heap, hastens fermentation, and adds greatly to the richness.

Whenever a fowl, cat, dog, sheep, pig, horse or cow dies, let the carcass be cut up, and the bones broken, and the whole added to the manure heap. The carcass of a single horse will turn loads of useless muck or peat into manure, richer than any ordinary barnyard dung. Why, then, suffer it to decay uselessly and annoyingly? It is true it is not lost, for the gasses that taint the air are appropriated by plants; but the farmer who owned the animal, gets but a small portion of what should be all his own, why then will he waste the dead energies of the horse, when he has lost the living ones?

If our readers will heed what we say they will not suffer dead animals to annoy the eye, and disgust the nose hereafter. Bury them in the manure heap; add some lime to quicken the decay, and charcoal dust or plaster to absorb the gases, and much will be gained to the good appearance of the farm, the quality of the manure, and the quantity of the crops grown, and much to the purse of the farmer. If your neighbor be so improvident as to waste a dead animal, beg it of him, that it may not be detrimental to health, and useless to vegetation. Laws should be passed to compel the saving and use of the most powerful of fertilizers, when common sense and decency fail to do it.

Whenever it is desirable to hasten decay, and rapidly turn animal matter into manure, sulphuric acid may be used.—This would be too expensive (though the acid is cheap) for farm purposes, but may be employed for the garden, where expense is not so important. It is frequently desirable to have a rich manure in the garden, and it is not at hand.—Animal matter put into sulphuric acid will in a few hours furnish it. Every house will supply much refuse animal matter. To this rats, mice, moles, feathers, hair, bones, horns, &c., may be added. If the garbage of a slaughter-house can be got, it should be. All these will soon be reduced to an available state, be inoffensive, and will add great fertility to the soil where used. The requisite quantity of acid may be ascertained by experiment—about ten or fifteen pounds is usually allowed for one hundred pounds of animal matter.—*Albany Cultivator.*

TILLING AMONG YOUNG TREES.

A correspondent tells us that he could not readily procure any litter to place around the trunks of his young trees, and that as he has planted the field where he set them with corn and potatoes, he thought litter would be in his way in tilling.

We think there might be a quantity around each tree that would not interfere with the crop. But he should endeavor to keep his soil about his young trees as moist as possible whether he uses litter or not. Next to covering the earth with something to check evaporation and to keep the soil both moist and light, plowing and stirring often through the summer will be found best. If you have the least doubt about the effect of plowing and hoeing often, just try the plan, let the book-farmers say what they will.

It is not very easy to explain why the frequent moving of the soil, and that to aconsiderable depth, should have an effect precisely the reverse of what is observed when we often remove other materials and expose them to the air. Hay will dry twice as fast when we stir it and let the air in, as when we let it lie with once spreading over the ground. Litter of any kind, leaves, manures, will dry up fast in proportion to their exposure to the atmosphere.

But it is certain that all soils are so constituted that frequent stirring keeps them more moist than when they are allowed to lie still. We have known practical farmers to delay hoeing their corn in a dry time for fear they should render the soil more dry to the injury of the harvest. They may have reasoned from what they had observed in regard to the stirring of other substances. Experiments on a very small scale will convince them that stirring the unswarded earth will not in a dry time, make it more dry.

If no litter has been placed about the trees, set this spring, keep the earth well tilled both for the sake of your trees and your harvest. When you plow among your trees you should always muffle the ends of the whiffle-tree to prevent galling or tearing off the bark. It is almost impossible to avoid it without this precaution.—*Mass. Plowman.*

HARROWS.—Most harrows are poorly constructed in one respect; that is in having the teeth too near. Sometimes we find in a harrow three or four feet square sixteen of twenty teeth. Now what chance is there to get clear of stones and other substances that cannot be demolished at once. On rough lands such harrows are continually clogging, and dragging along a mass of matter with very little effect as to pulverization. Would it not be far better to have less teeth, that they might operate well, and then go over the land oftener.—*Bost. Cult.*

THE CORN AND WHEAT CROPS.

We can scarcely conceive the immense quantities of corn and wheat which are annually produced in the United States. The Delta says that the crops of the West for the year 1846 will be more than 500,000,000 of bushels of corn, and 140,000,000 of wheat. In the State of Ohio, alone, the quantity of corn raised, is estimated at 60,000,000 bushels. The Cultivator says, "The Ross County Agricultural Society have taken pains to ascertain, as near as possible, the amount of the principal productions raised on each farm in several townships of that county. In the report recently made to the State Board of Agriculture, we find that in the township of Scioto, the aggregate of corn is 359,335 bushels from only sixty-six farms or estates. On one of these (Dr. Massie's) 50,000 bushels were produced! and on another, (Dr. Watt's) 38,500 bushels! Another township, (Liberty,) in the same county, gives an aggregate of 93,704 bushels from seventy-five farms or estates. In both of these townships the average per aker is not over about fifty bushels. The population of Scioto township in 1840 was 1,379—of Liberty 1,256. There are seventeen townships in the county, and many such counties for the production of corn, in the central and southern valleys of Ohio. In the thinly settled county of Fayette, where most of the farms are devoted to grazing, and not a river county, the Agricultural Society, after extensive inquiry, report an estimate of the corn crop for the present year at 900,000 bushels!"

Our minds are bewildered and lost in the calculation of the quantity of food that the vast and almost illimitable extent of our yet uncultivated country may be made to produce.—*Southern Planter.*

HINTS TO FARMERS.

The farmer's life is shunned by many because it seems one of mindless drudgery. It ought not to be so. If our farmers would study and reflect more, they might do less hard labor, and yet accomplish more in the course of a year. Ten hours' work in summer, and eight in winter, ought, with good management, to give any man a good living. He who works so hard that he cannot read or reflect after the labors of the day are over, because of fatigue, does not plan wisely. Let no man shun work when work should be done; but delve, delve forever, is not the end of man's life. The farmer's evenings should be devoted to mental acquisition and rational enjoyment. To sip and tumble into bed is a hog's fashion, and highly injurious to health. But let a farmer have about him the choicest works of his own auxiliary avocations; let these form the subject of study and conversation at least two evenings in a week, while, the newest and oldest volume, each have their allotted seasons. Two or three dollars contributed by each family in a neighborhood or school district, would go a great way in the purchase of standard books at modern prices. These are but hints which each reader will modify as his judgment will suggest, I plead only for the essential thing of making home pleasant, and its hours of relaxation hours of instruction also—*H. Greeley.*

LIME IN PLANTING TREES.

Many object to planting trees either for ornament or use, in consequence of the numerous failures they experience. This, however, it should be recollected, is not a necessary result. With proper care there is no more difficulty in transplanting than in planting and propagating from the seed or germ. In setting trees, we have ever found that they do best when taken up in the fall, about the time the leaves drop. Fruit and forest trees, shrubs and perenial plants of all descriptions, may, at this season, be removed with perfect success. In setting, we usually put a small quantity of lime in the hole—about half a peck to a tree, mixing it thoroughly with the mold, in order that it may be easily accessible to the roots, which ramify in every direction in quest of food. An English publication says that an extensive plantation of trees has been formed within a few years, without the loss of a single tree, and this has been effected simply by putting a small quantity of lime in the hole before depositing the tree. Four bushels are said to be amply sufficient for an aker. The effect of the lime is "to push on the growth of

the plant in the first precarious plant." There seems to have existed, at first, an apprehension that liming the plant would force it on prematurely. but this apprehension experience has demonstrated to have been perfectly groundless.
Southern Planter

PORTABLE HOUSES.

The snail and the tortoise carry their houses with them; are always at home wherever they stop, and are comfortably housed. Man is an imitative animal, and must needs try to put himself in as good a condition as the lower order of animals. So, as he cannot very well encase himself in a travelling house, *a la tortoise*, he contrives one to carry with him in his valise or by the side of it. "They say" that there is now established, at Cincinnati, a manufactory of portable cottages, where are made very comfortable houses, that can be transported very readily, from place to place. A writer in the Railroad Journal, states that a friend of his travelled in company with one of these locomotive dwellings, and saw and partook of its shelter, when put up. He says: "The party went on board of a small boat, the cottage was shipped, and half a dozen men went down the Ohio river a distance of some twenty miles, where the house was to be put up. They moved the materials (which of course had all been prepared, like the different portions of a wardrobe or bedstead) to the spot chosen for its erection, and the next evening the party all took tea with the family, and returned home again! The house, (four rooms with three closets) was grooved, morticed, and put up in "good shape," and occupied within forty-eight hours after it left Cincinnati.—*Maine Farmer.*

Training Heifers. — As I have never seen in your paper any plan of treating heifers, when they first calve, and afterwards, until they are gentle to milk, I will give you a few hints. The first thing is to be kind to them, for a kind pat of the hand, with a gentle tone of the voice, will often do more good than all the knotty poles that have been broken over their backs. As soon as the calf is dropped, go immediately to them and handle the teats as if going to milk, which is often necessary, and they will bear it much better than they will after the bag has become feverish and sore. If the bag is likely to cake before calving, grease it with some soft grease. After the calf is strong enough to leave the cow, confine him in one place, and always put the cow to the calf, and not the calf to the cow. Handle the teats, also, to get her accustomed to being milked. When the calf is old enough to wean or slaughter, put the heifer in the same place still; she will readily be milked, and will not mourn for her calf as she will when treated differently. The advantage of this kind of treatment is, heifers readily give their milk down at a time and in a place to which they have been accustomed.

Cows treated in this way, frequently, never miss their calves, which saves them from very unpleasant feelings, and their masters from one of the unpleasantests sounds that ever was heard from a dumb beast. I speak from thirty-five years' experience in breaking heifers, and have never had to fat a single heifer, or cheat some one else with her because I could not milk her myself. A. W. St. John.
Darien Ct., March, 1847. *Alb. Cult.*

Hay.—Hay in England is scarcely ever put in barns. It keeps well in stacks, made up as they are in the neatest manner, and carefully thatched with straw. Nothing can be more beautiful and workmanlike than the manner in which they are made up; and for hay, the long stacks are decidedly preferable to those of a round form, as it is cut down for use, in such case to more advantage. The formation of a stack, which is often done by women, is a work of much skill, which is the fruit only of practice; the thatching of a stack in the best manner, requires both art and experience, and there are men who make it a profession.—When well executed, the hay is for years impervious to wet. During the formation of the stack, which, when intended to be large, must sometimes wait for several days the progress of hay-making, the most careful farmers have a large tarpaulin or canvass covering to suspend upon poles over the stack in order to protect it from rain. I refer to those minute circumstances, to illustrate the extreme carefulness with which many of the operations of husbandry are conducted. When the hay is to be used, a whole stack is never removed to the stables at once, but is carefully cut down as a loaf of bread might be cut, and always done up and bound in trusses, intended to be of fifty-six pounds, and in that way carried to be distributed to the animals. This requires some extra labor; but the farmers find their accounts in it.—*Colman's European Agriculture.*

Wash for Fruit Trees. — Lime wash, or white-wash, is not considered as good for trees as potash wash. The latter is made by dissolving potash in water, at the rate of one pound to a gallon. It may be applied with a brush, in the spring, or at any other season, and will, by one or two applications, render the bark smooth and clean. For old trunks, with thick and rigid bark, Mr. Downing, (in the *Fruit and Fruit Trees of America*,) recommends a wash of soft soap. He thinks it better for this purpose than potash, "as a portion of it remains on the surface of the bark for some time, and with the action of every rain is dissolved and penetrates into every crevice, destroying the insects and softening the bark itself."

Invigorating Fruit Trees. — The papers often contain notices of the advantages of applying ashes, salt, cinders, charcoal, lime, soot, &c., to fruit trees, to increase their growth; these are often beneficial in moderate quantities, and occasionally eminently so in certain conditions of the tree or soil; but the treatment which is most strikingly beneficial, and in the greatest number of cases, is to make the soil deep and rich, and to keep it clean and mellow by constant cultivation. Hence the selection of stony ground or side-hills is bad policy.—*Alb. Cult.*

Pruning Forest and Ornamental Trees.—Pruning is an operation which by some is carried too far, and by others entirely neglected. When substituted in place of thinning, it is carried to an injurious and unprofitable extent, and when neglected altogether, many trees will only assume the habit of shrubs. It is not a little amusing to observe the expedients resorted to, to remedy the evil of close planting, and to put off to a more convenient season, the very necessary operation of thinning, which, if done in time, is the only effectual remedy. One of these shifts, and a most absurd one it is, is cutting off the whole of the lower branches, leaving only a few of the upper ones to form a small top, as if nature had committed a great error in furnishing the plants with a superfluity of resources by which to draw to them that nourishment necessary for their existence. This is a very gross error when practiced even on hard-wood trees, as it must of necessity retard their growth, and cause them to make unnecessary efforts to restore what they have lost by pushing out shoots from their stems near the parts where the branches were attached to. This of itself is sufficient to teach any reflecting person that the practice is wrong. But when adopted on resinous plants, such as the fir tribe, it is most destructive, as they are deprived by nature of the means of restoration, and hence the wounds remain unhealed for years, and in many cases as long as the plants survive.—*Gardeners' Chronicle.*

Protection to Trees. — A friend who has the well-being of our fine trees and plants much at heart, writes to us as follows concerning a new discovery of means whereby insects may be driven off effectually. He says:

"We are indebted to Austria for a recent and happy invention. An individual of that country has thought of using the galvanic power for the preservation of trees and plants. He uses for that purpose two rings; one of copper, and the other of zinc. Having placed one upon the other, he fixes them round the trunk of the tree, and if an insect but touch the ring of copper, it receives at once a galvanic shock, by which it is killed, or made to fall. The effect of this apparatus is equally good in dry or wet weather, and its action unceasing."

It is a very simple plan, and is deserving of a trial.
U. S. Gazette.

SHEEP—RUNNING AT THE NOSE AND EYES.—A subscriber in Cambridge, in this State, asks "what is the most proper treatment for sheep when they are taken with a running at the eyes and nose?"

The treatment of such disease must depend very much upon the cause. Sometimes such symptoms indicate the existence of worms in the head. The sheep-fly lays its egg in the nostril of the sheep, and this produces a maggot or worm, which creeps up the nose and lodges itself in the cavity or sinus between the eyes. The irritation which these produce, brings on a profuse flow of the mucus from the nose and oftentimes a running from the eyes. A great many things have been recommended and tried to dislodge them, but with little success. Trepanning and opening the head and taking them out is the most sure method, but this is hardly advisable unless there are many lodged there.

Sometimes the discharges from the nose and eyes are caused by a cold or influenza. There is a profuse discharge from the nose, and the fluid that runs from the eyes is often times of a corrosive nature, and excoriates the skin so severely that the wool or hair comes off where it has touched.

Some counter irritant, such as tar applied freely to the nose—sulphur put into a little provender—warmth and good shelter, are good remedies for such cases. Wash the eyes out clean with warm milk and water and an application of some warm astringent wash, such as a tea made of raspberry leaves, poplar bark, and such like materials.

Maine Farmer.

THE LAW OF MANURE.—A case was recently decided by the Supreme Court of Vermont, involving the right of manure made on a farm previous to its sale. The court held that all manures belonged to the freehold, and passed with the farm at its sale, and that the previous occupant of the farm, who made the manures from his own materials, had no right to remove them. This is directly opposed, we believe, to a decision of the Supreme Court of Massachusetts, which held manures to be personal property. As both decisions were made under the common law—there being no statute in either State applying to the case—we are bound to believe that "the perfection of human reason" varies very much in different localities.—*Boston Mail.*

NATURAL CURIOSITY.—An English chemist has in his possession, a toad and mouse, which were discovered in a garden. It appears from the manner in which they were found, that they killed each other in battle; the toad, in trying to subdue his enemy, has several wounds; and the mouse, who was fastened on the toad's back with his teeth near the jaws, is supposed to have died with the reptile's poison.

REMARKABLE DISEASE IN SHEEP.—A farmer in Ruthwell, Dumfrieshire, lost about half a score of sheep, and, on an examination being made of the cause of death, it was discovered that the intestines contained a number of loch or horse-leeches. These animals had probably been swallowed by the sheep when drinking, and appeared to have eaten through the coats of the stomach until they reached some of the vital organs whereby death was produced.—*Eve. pap.*

TO COOK PARSNEPS.—Persons who have never eaten parsneps cooked according to the following mode, have no idea what an excellent dish they are: Scrape the parsneps, wash and slice them lengthwise; boil in just water enough to cover them till thoroughly done. Then put in a piece of butter, with a little salt and pepper. Beat up an egg with a spoonful of flour, and pour over them; they are then ready to dish up. Parsneps are likewise very good, split once and roasted with pork in the dripping pan.—*Albany Cult.*

CORN-COB MEAL.—The value of the cob when ground into meal with the corn is owing more to its reducing the nutritive qualities of the corn, than to the amount of nourishment contained in itself. In corn alone, the nourishment is in too concentrated a form for the most profitable use; the cob meal, as it were, dilutes it, and renders it more healthful for all animals, especially for horses and cattle.

Michigan Farmer.

RAISED FOOT PATHS.—Paths through the yard, near dwellings in the country, may be rendered much more convenient, and be much more easily kept in order, by raising an embankment from one to two feet in height. Two years ago, we dug a well, and had a quantity of the broken slate arranged for this purpose. It proved to be a labor-saving operation. Even when deep snows fall, very little (comparatively) settles on this ridge; and it is but a small job to keep the path open, while all the rest of the year, it may be safely traversed with slippers or thin shoes without wetting our feet, as the rain soaks away from the surface almost as soon as it falls. It is never slippery like plank or boards.

3 *mo.*, 20, 1847. D. T.

THE GOOD OLD PLOW.

Let them sing who may of the battle fray,
And the deeds that have long since past;
Let them chant in praise of the tar whose days
Are spent on the ocean vast;
I would render to these all the worship you please,
I would honor them even now,
But I'd give far more from my heart's full store,
To the cause of the Good Old Plow.

Let them laud the notes that in music float
Through their bright and their glittering halls;
While the amorous twirl of the hair's bright curl
Round the shoulder of beauty falls;
But dearer to me is the song from the tree,
And the rich and blossoming bough;
O! these are the sweets which the rustic greets,
As he follows the Good Old Plow.

Then how jocund the song as it comes along
From the plowman's lusty throat;
Did the hunter his shout ever yet give out
To the brown woods a merrier note?
Though he follows no hound, yet his day is cronwed
With a triumph as good I trow,
As though antlered head at his feet lay dead,
Instead of the Good Old Plow.

Full many there be that we daily see
With a selfish and hollow pride,
Who the Plowman's lot in his humble cot,
With a scornful look deride;
Yet I'd rather take, aye, a hearty shake
From his hand, than to wealth I'd bow,
For the honest grasp of that hand's rough clasp
Has stood by the Good Old Plow.

All honor be then to these gray old men,
When at last they are bowed with toil;
Their welfare then o'er, why they battle no more,
For they've conquered the stubborn soil,
And the chaplet each wears are his silvery hairs,
And near shall the victor's brow
With a laurelled crown to the grave go down,
Like these sons of the Good Old Plow.

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